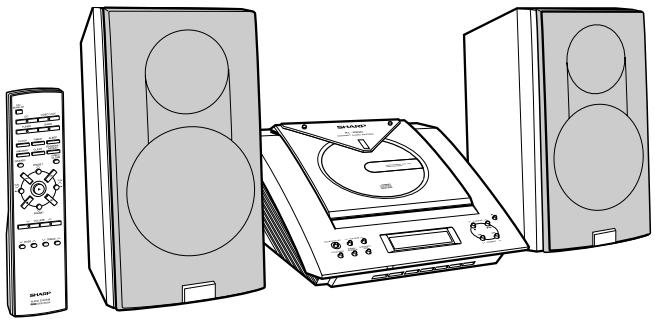
# SHARP SERVICE MANUAL

No. S4125XL1000H/

## COMPACT AUDIO SYSTEM



## MODEL XL-1000H

**XL-1000H Compact Audio System consisting of XL-1000H (main unit) and CP-XL1000H (speaker system).**

## MODEL XL-1100H

**XL-1100H Compact Audio System consisting of XL-1100H (main unit) and CP-XL1100H (speaker system).**

COMPACT disc DIGITAL AUDIO

SAVING ENERGY STAND-BY POWER CONSUMPTION 0.6W

ENERGY

**(For Europe)**

• In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified should be used.

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**SHARP CORPORATION**

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

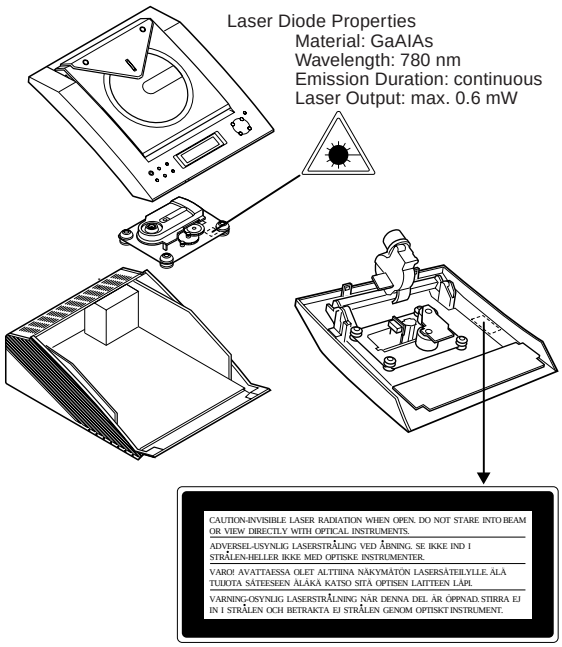
# SAFETY PRECAUTION FOR SERVICE MANUAL

This product is classified as a CLASS 1 LASER PRODUCT.

**Precaution to be taken when replacing and servicing the Laser Pickup.**

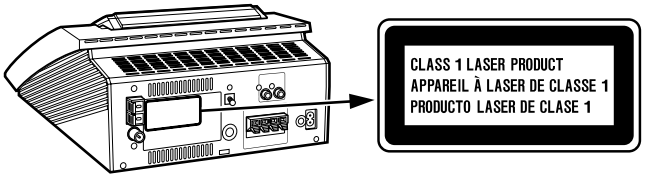
The AEL (Accessible Emission Level) of Laser Power Output is less than Class 1 but the laser component is capable of emitting radiation exceeding the limit for Class1. Therefore it is important that the following precautions must be observed during servicing to protect your eyes against exposure to the Laser beam.

(1) When the cabinet has been removed, the power is turned on without a compact disc, and the Pickup is on a position outer than the lead-in position, the Laser will light for several seconds to detect a disc. Do not look into the Pickup Lens.
(2) The Laser Power Output of the Pickup inside the unit and replacement service parts have already been adjusted prior to shipping.
(3) No adjustment to the Laser Power should be attempted when replacing or servicing the Pickup.
(4) Under no circumstances look directly into the Pickup Lens at any time.
(5) CAUTION - Use of controls or adjustments, or performance of procedures other than those specified herein may result in hazardous radiation exposure.

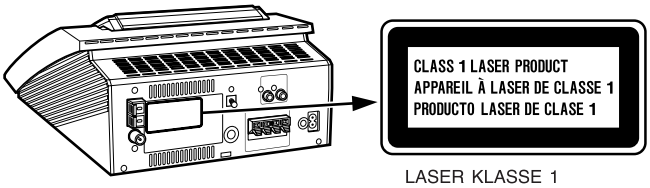

Laser Diode Properties
Material: GaAlAs
Wavelength: 780 nm
Emission Duration: continuous
Laser Output: max. 0.6 mW
CAUTION-INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.
ADVERSEL-USYNLIG LASERSTRÅLING VED ÅBNING. SE IKKE IND I STRÅLEN-HELLER IKKE MED OPTISKE INSTRUMENTER.
VARO! AVATTAESSA OLET ALTTIINA NÄKYMÄTÖN LASERSÄTEILYLLE. ÄLÄ TULIOTA SÄTEESEEN ÄLÄKÄ KATSO SITÄ OPTISEN LAITTEEN LÄPI.
VARNING-OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRAKTA EJ STRÅLEN GENOM OPTISKT INSTRUMENT.

**VAROITUS! LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.**

**VARNING - OM APPARATEN ANVÄNDS PÅ ANNAT SÄTT ÄN I DENNA BRUKSANVISNING SPECIFICERAS. KAN ANVÄNDAREN UTSÄTTAS FÖR OSYNLIG LASER-STRÅLNING, SOM ÖVERSKRIDER GRÄNSEN FÖR LASERKLASS 1.**




**(For U.K. )**




LASER KLASSE 1
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT
**LASER TŘÍDY 1**
**LASER TRIEDY 1**

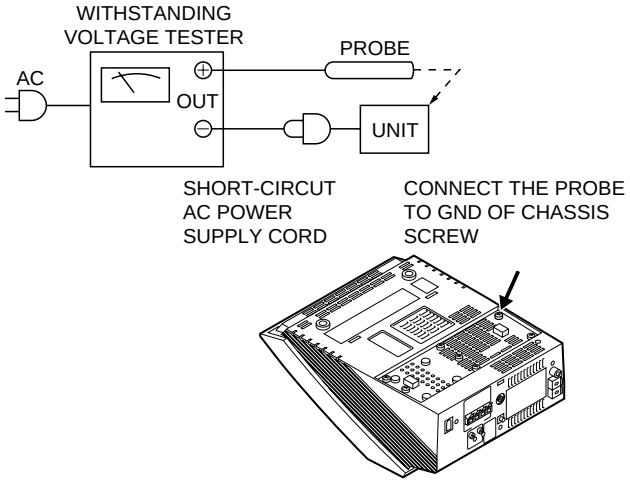
**(For Europe)**

# IMPORTANT SERVICE NOTES (FOR U.K. ONLY)

Before returning the unit to the customer after completion of a repair or adjustment it is necessary for the following withstand voltage test to be applied to ensure the unit is safe for the customer to use.

Setting of Withstanding Voltage Tester and set.

| Set name | set value |
|---|---|
| Withstanding Voltage Tester | |
| Test voltage | 4,240 VPEAK<br>3,000 VRMS |
| Set time | 6 secs |
| Set current(Cutoff current) | 4 mA |
| Unit | |
| Judgment | |
| OK: The “GOOD” lamp lights.<br>NG: The “NG” lamp lights and the buzzor sounds. | |



FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

# SPECIFICATIONS

**For U.K.**

## ■ General

| | |
|---|---|
| **Power source** | AC 230 V, 50 Hz |
| **Power consumption** | Power on: 30 W<br>Power stand-by: 0.6 W |
| **Dimensions** | Width: 230 mm (9-1/16")<br>Height: 128 mm (5-1/16")<br>Depth: 293 mm (11-9/16") |
| **Weight** | 2.5 kg (5.5 lbs.) |

## ■ Amplifier

| | |
|---|---|
| **Output power** | RMS: 20 W (10 W + 10 W) (10 % T.H.D.) |
| **Output terminals** | Speakers: 8 ohms<br>Headphones: 16 - 50 ohms (recommended: 32 ohms)<br>CD digital output (optical) |
| **Input terminals** | Video/Auxiliary (audio signal): 500 mV/47 kohms |

## ■ CD player

| | |
|---|---|
| **Type** | Compact disc player |
| **Signal readout** | Non-contact, 3-beam semiconductor laser pickup |
| **D/A converter** | 1-bit D/A converter |
| **Frequency response** | 20 - 20,000 Hz |
| **Dynamic range** | 90 dB (1 kHz) |

## ■ Tuner

| | |
|---|---|
| **Frequency range** | FM: 87.5 - 108 MHz<br>AM: 522 - 1,620 kHz |

## ■ Speaker

| | |
|---|---|
| **Type** | 2-way type speaker system<br>Tweeter<br>10 cm (4") Woofer |
| **Maximum input power** | 20 W |
| **Rated input power** | 10 W |
| **Impedance** | 8 ohms |
| **Dimensions** | Width: 140 mm (5-9/16")<br>Height: 263 mm (10-3/8")<br>Depth: 187 mm (7-3/8") |
| **Weight** | 1.5 kg (3.3 lbs.)/each |

Specifications for this model are subject to change without prior notice.

**For Europe**

## ■ General

| | |
|---|---|
| **Power source** | AC 230 V, 50 Hz |
| **Power consumption** | Power on: 30 W<br>Power stand-by: 0.6 W |
| **Dimensions** | Width: 230 mm (9-1/16")<br>Height: 128 mm (5-1/16")<br>Depth: 293 mm (11-9/16") |
| **Weight** | 2.5 kg (5.5 lbs.) |

## ■ Amplifier

| | |
|---|---|
| **Output power** | PMPO: 60 W (total)<br>MPO: 30 W (15 W + 15 W) (DIN 45 324)<br>RMS: 20 W (10 W + 10 W) (DIN 45 324) |
| **Output terminals** | Speakers: 8 ohms<br>Headphones: 16 - 50 ohms (recommended: 32 ohms)<br>CD digital output (optical) |
| **Input terminals** | Video/Auxiliary (audio signal): 500 mV/47 kohms |

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| | |
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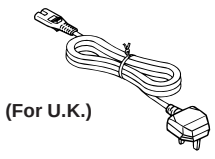
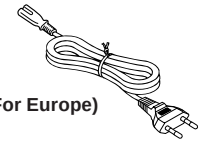
| **Weight** | 1.5 kg (3.3 lbs.)/each |

# ACCSSORIES

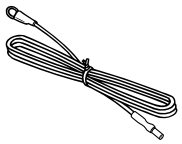


**(For U.K.)**

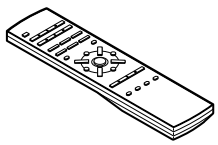


**(For Europe)**

**AC power lead × 1**

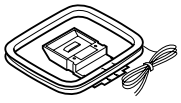


**FM aerial × 1**

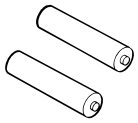


**Remote control × 1**

**Speaker wire × 2**



**AM loop aerial × 1**

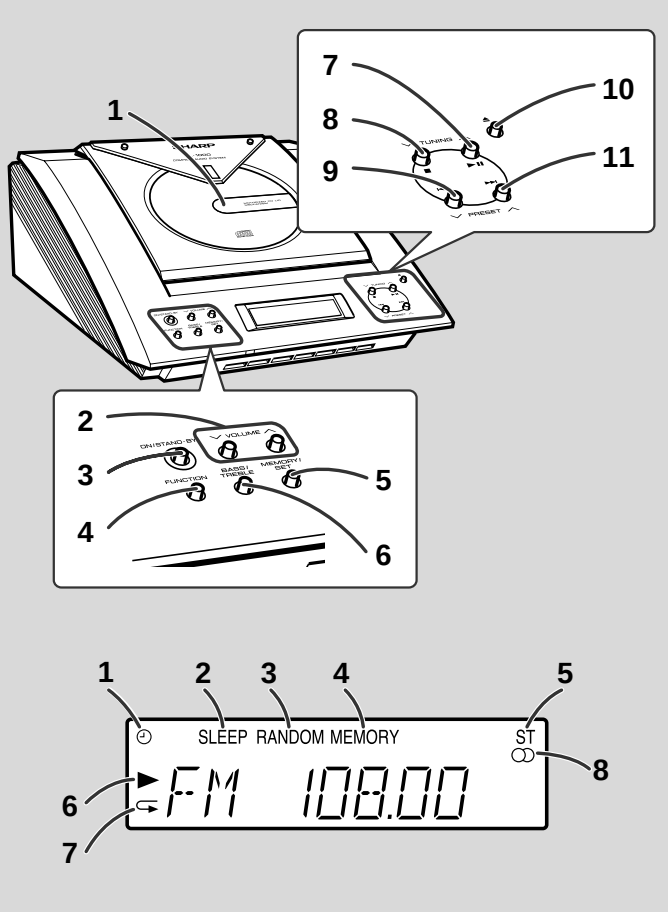


**"AAA" size battery (UM-4, R03, HP-16 or similar) × 2**

**(For Europe Only)**

**Note:**
Only the above accessories are included.

# NAMES OF PARTS

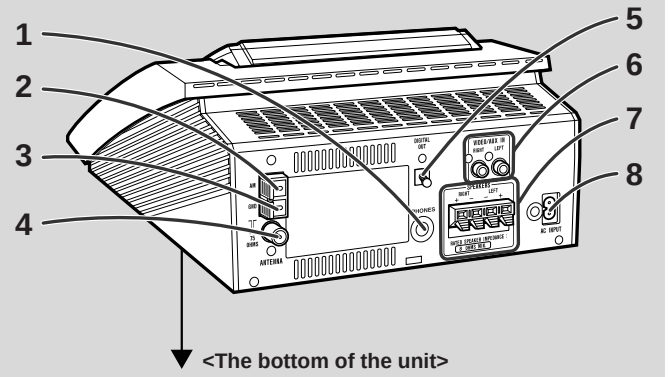



## ■ Front panel

1. CD Compartment
2. Volume Up and Down Buttons
3. On/Stand-by Button
4. Function Selector Button
5. Memory/Set Button
6. Bass/Treble Selector Button
7. CD Play or Pause, Tuning Up Button
8. CD Stop, Tuning Down Button
9. CD Track Down or Fast Reverse, Tuner Preset Down Button
10. CD Open/Close Button
11. CD Track Up or Fast Forward, Tuner Preset Up Button

## ■ Display

1. Timer Play Indicator
2. Sleep Indicator
3. CD Random Play Indicator
4. Memory Indicator
5. FM Stereo Mode Indicator
6. CD Play Indicator
7. CD Repeat Play Indicator
8. FM Stereo Receiving Indicator




<The bottom of the unit>

| SHARP MODEL NO. XL-1000H |
|---|
| COMPACT AUDIO SYSTEM |
| 230 V ~ 50 Hz 30 W |
| SERIAL NO. |
| SHARP CORPORATION |

(For Europe)

| SHARP MODEL NO. XL-1000H |
|---|
| COMPACT AUDIO SYSTEM |
| 230 V ~ 50 Hz 30 W |
| FREQUENCY RANGE: FM 87.5 - 108 MHz |
| AM 522 - 1620 kHz |
| SERIAL NO. |
| SHARP CORPORATION |

(For U.K.)

| SHARP MODEL NO. XL-1100H |
|---|
| COMPACT AUDIO SYSTEM |
| 230 V ~ 50 Hz 30 W |
| SERIAL NO. |
| SHARP CORPORATION |

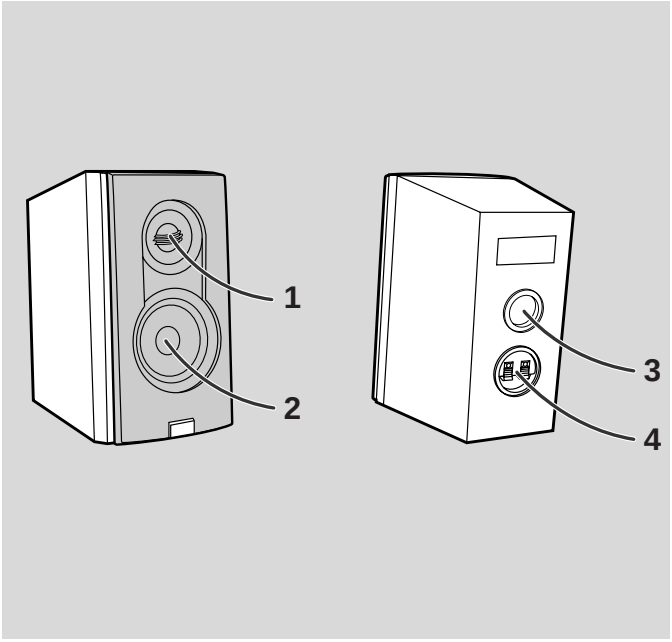
(For Europe)

| SHARP MODEL NO. XL-1100H |
|---|
| COMPACT AUDIO SYSTEM |
| 230 V ~ 50 Hz 30 W |
| FREQUENCY RANGE: FM 87.5 - 108 MHz |
| AM 522 - 1620 kHz |
| SERIAL NO. |
| SHARP CORPORATION |

(For U.K.)

## ■ Rear panel

1. Headphone Socket
2. AM Aerial Terminal
3. Aerial Earth Terminal
4. FM 75 Ohms Aerial Socket
5. CD Digital Output Socket
6. Video/Auxiliary (Audio Signal) Input Sockets
7. Speaker Terminals
8. AC Power Input Socket

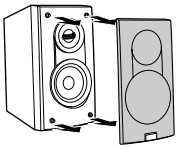



## ■ Speaker system

1. **Tweeter**
2. **Woofer**
3. **Bass Reflex Duct**
4. **Speaker Terminals**

**Speaker grilles are removable:**

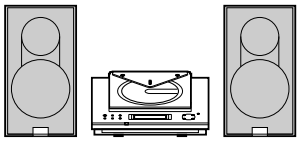
Make sure nothing comes into contact with the speaker diaphragms when you remove the speaker grilles.

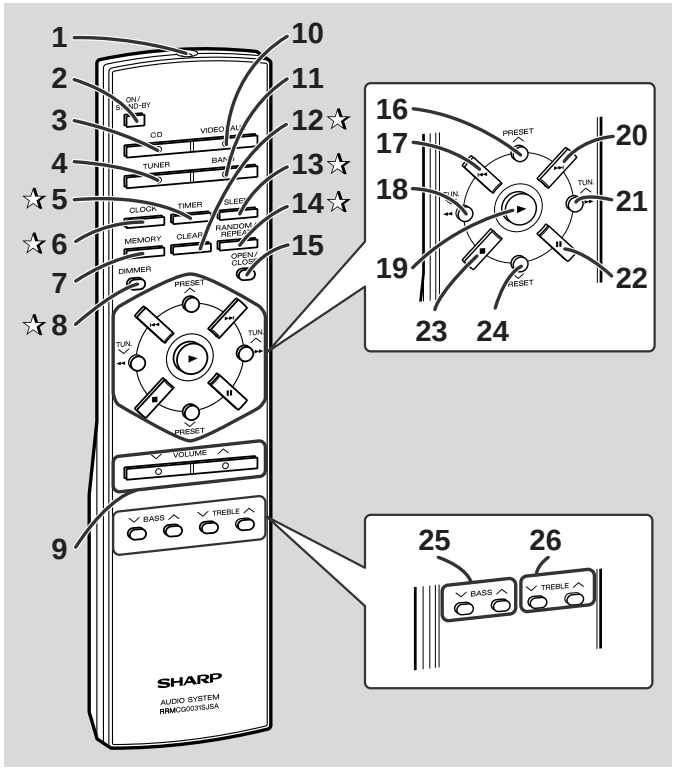


**Placing the speaker system:**

There is no distinction between the right and the left speakers.

**Left speaker** **Right speaker**





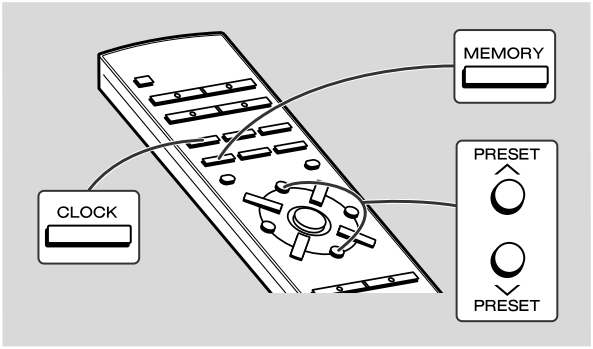

## ■ Remote control

1. Remote Control Transmitter
2. On/Stand-by Button
3. CD Button
4. Tuner Button
5. **Timer Button**
6. **Clock Button**
7. Memory Button
8. **Dimmer Button**
9. Volume Up and Down Buttons
10. Video/Auxiliary Button
11. Band Selector Button
12. **Clear Button**
13. **Sleep Button**
14. **Random/Repeat Button**
15. CD Open/Close Button
16. Tuner Preset Up Button
17. CD Track Down Button
18. CD Fast Reverse, Tuning Down Button
19. CD Play Button
20. CD Track Up Button
21. CD Fast Forward, Tuning Up Button
22. CD Pause Button
23. CD Stop Button
24. Tuner Preset Down Button
25. Bass Up and Down Buttons
26. Treble Up and Down Buttons

Buttons with "☆" mark in the illustration can be operated on the remote control only.
Other buttons can be operated both on the main unit and the remote control.

# OPERATION MANUAL

## Setting the Clock




This may be operated only with the remote control.
In this example, the clock is set for the 24-hour (0:00) display.

**1** **Press the CLOCK button and within 3 seconds, press the MEMORY button.**

**2** **Within 1 minute, press the PRESET (∨ or ∧) button to select 24-hour or 12-hour display and then press the MEMORY button.**

"0:00" → The 24-hour display will appear.
(0:00 - 23:59)
"AM 12:00" → The 12-hour display will appear.
(AM 12:00 - PM 11:59)
Note that this can only be set when the unit is first installed or it has been reset.

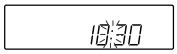
**3** **Within 1 minute, press the PRESET (∨ or ∧) button to adjust the hour and then press the MEMORY button.**

- When the 12-hour display is selected, "AM" will change automatically to "PM".

**4** **Within 1 minute, press the PRESET (∨ or ∧) button to adjust the minutes and then press the MEMORY button.**

- The hour will not advance even if minutes advance from "59" to "00".
- The clock starts from "0" second. (Seconds are not displayed.)

**To confirm the time display when the power is on:**
Press the CLOCK button.
The time display will appear for about 5 seconds.



**Note:**
The "0:00" or time will flash at the push of the CLOCK button when the AC power supply is restored after a power failure or unplugging the unit.
Readjust the clock as follows.

**To readjust the clock:**
Perform "Setting the Clock" from the beginning. If the time display is flashing, step 2 (for selecting the 24-hour or 12-hour display) will be skipped.

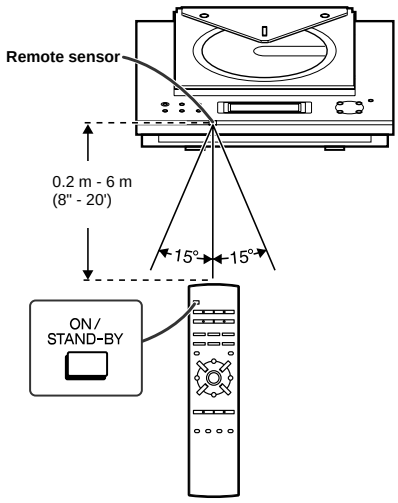
**To change the 24-hour or 12-hour display:**
1 Clear all the programmed contents.
2 Perform "Setting the Clock" from the beginning.

## Remote Control

### ■ Test of the remote control

Face the remote control directly to the remote sensor on the unit.

**The remote control can be used within the range shown below:**
Press the ON/STAND-BY button. Does the power turn on? Now, you can enjoy the music.

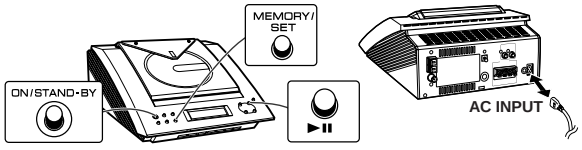



## Troubleshooting Chart

### ■ If trouble occurs

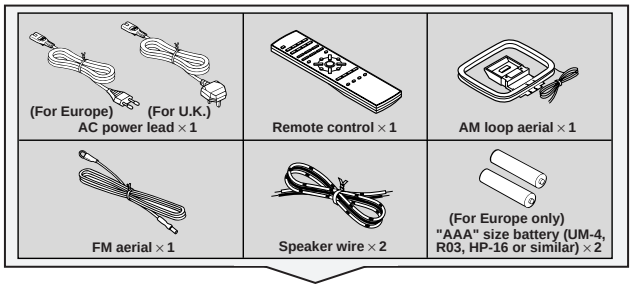
When this product is subjected to strong external interference (mechanical shock, excessive static electricity, abnormal supply voltage due to lightning, etc.) or if it is operated incorrectly, it may malfunction.

**If such a problem occurs, do the following:**
**1 Set the unit to the stand-by mode and turn the power on again.**
**2 If the unit is not restored in step 1, unplug and plug in the unit, and then turn the power on.**
**3 If neither step 1 nor 2 restores the unit, do the following:**
① Press the ON/STAND-BY button to enter the power stand-by mode.
② Unplug the AC power lead from the AC INPUT socket on the unit.
③ Whilst pressing down the MEMORY/SET button and the ▶II button, plug the AC power lead into the AC INPUT socket on the unit.



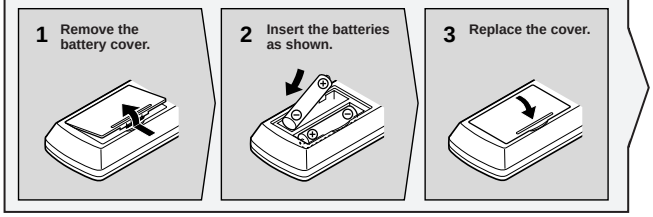

**Caution:**
This operation will erase all data stored in memory including clock, timer settings, tuner preset, and CD programme.

## 1 Accessories

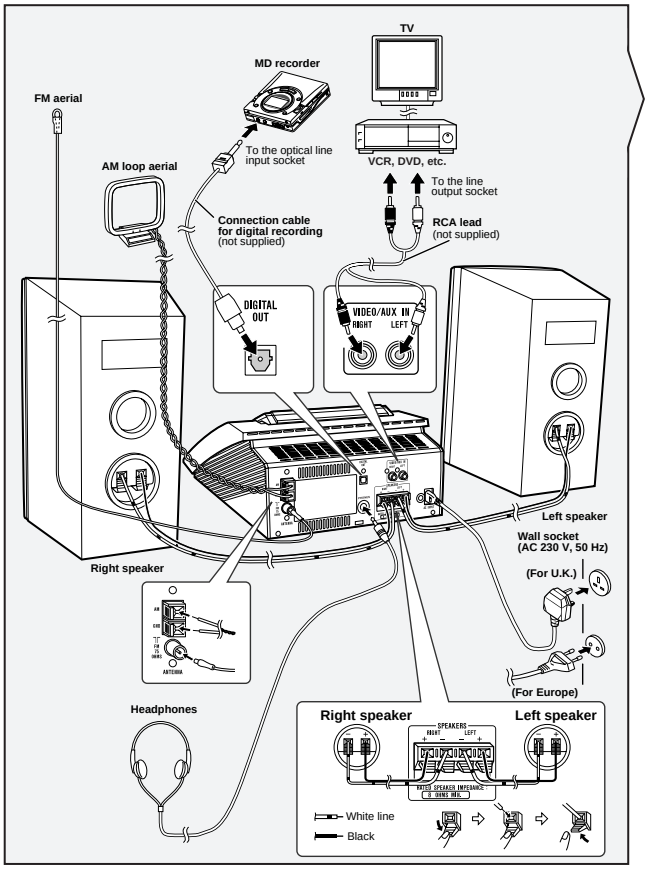

(For Europe)
(For U.K.)
AC power lead × 1
Remote control × 1
AM loop aerial × 1
FM aerial × 1
Speaker wire × 2
(For Europe only)
"AAA" size battery (UM-4, R03, HP-16 or similar) × 2

## 2 Battery installation of remote control

Use 2 "AAA" size batteries (UM-4, R03, HP-16 or similar).
Batteries are not included.

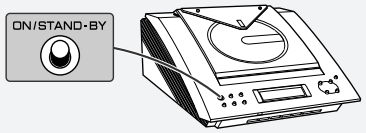



## 3 System connections

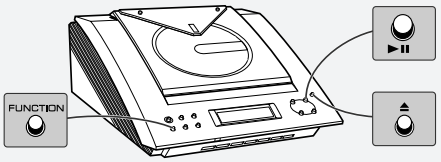



## 4 Turn on your system

Press the ON/STAND-BY button to turn the power on.



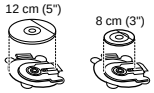

## Listening to a CD



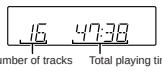

1 FUNCTION — Press the FUNCTION button until "CD STOP" or "NO DISC" appears on the display.

2 ⏏ — Press the ⏏ button to open the CD compartment.

3 Place a CD on the spindle, label side up.

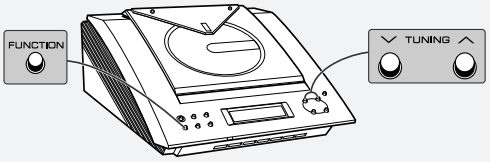



4 ⏏ — Press the ⏏ button to close the CD compartment.




5 ▶II — Press the ▶II button to start playback from track 1.

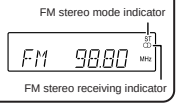
## Listening to the radio




1 FUNCTION — Press the FUNCTION button until "FM" or "AM" appears on the display.

2 TUNING — Press the TUNING (∨ or ∧) button to tune in to the desired station.
When the TUNING button is pressed for more than 0.5 seconds, scanning will start automatically and the tuner will stop at the first receivable broadcast station.

3 FUNCTION — To receive an FM stereo transmission: Press the FUNCTION button to display the "ST" indicator.
● "ST" will appear when an FM broadcast is in stereo.

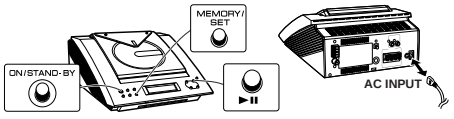



## ■ If trouble occurs

When this product is subjected to strong external interference (mechanical shock, excessive static electricity, abnormal supply voltage due to lightning, etc.) or if it is operated incorrectly, it may malfunction.

**If such a problem occurs, do the following:**

1. **Set the unit to the stand-by mode and turn the power on again.**
2. **If the unit is not restored in step 1, unplug and plug in the unit, and then turn the power on.**
3. **If neither step 1 nor 2 restores the unit, do the following:**
   ① Press the ON/STAND-BY button to enter the power stand-by mode.
   ② Unplug the AC power lead from the AC INPUT socket on the unit.
   ③ Whilst pressing down the MEMORY/SET button and the ▶II button, plug the AC power lead into the AC INPUT socket on the unit.




## ■ Maintenance

Do not touch the laser pickup lens. If fingerprints or dust accumulate on the pickup, clean it gently with a dry cotton swab.

# DISASSEMBLY

**Caution on Disassembly**

Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep it safe and ensure excellent performance:

1. Take compact disc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need to be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

| STEP | REMOVAL | PROCEDURE | FIGURE |
|---|---|---|---|
| 1 | Rear panel/Terminal PWB | 1. Screw ..... (A1) x7<br>2. Socket ..... (A2) x2<br>3. Screw ..... (A3) x3 | 8-1<br><br>8-1,2 |
| 2 | Top cabinet | 1. Screw ..... (B1) x2<br>2. Hook ..... (B2) x5<br>3. Flat Cable ..... (B3) x1<br>4. Socket ..... (B4) x7 | 8-2 |
| 3 | Tuner PWB | 1. Screw ..... (C1) x2<br>2. Socket ..... (C2) x1 | 9-1 |
| 4 | Power PWB | 1. Socket ..... (D1) x1<br>2. Hook ..... (D2) x1 | 9-1 |
| 5 | Main PWB | 1. Socket ..... (E1) x1<br>2. Screw ..... (E2) x8 | 9-1 |
| 6 | Display PWB | 1. Screw ..... (F1) x4<br>2. Hook ..... (F2) x4 | 9-2 |
| 7 | CD Mechanism | 1. Screw ..... (G1) x4 | 9-2 |
| 8 | Gear Box | 1. Screw ..... (H1) x1<br>2. Holder ..... (H2) x1<br>3. Lever ..... (H3) x1<br>4. Screw ..... (H4) x2<br>5. Lever ..... (H5) x1 | 9-2 |
| 9 | LED PWB | 1. Screw ..... (J1) x1 | 9-2 |

**Note:**
After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of connector remove to protect the optical pickup from electrostatic damage.

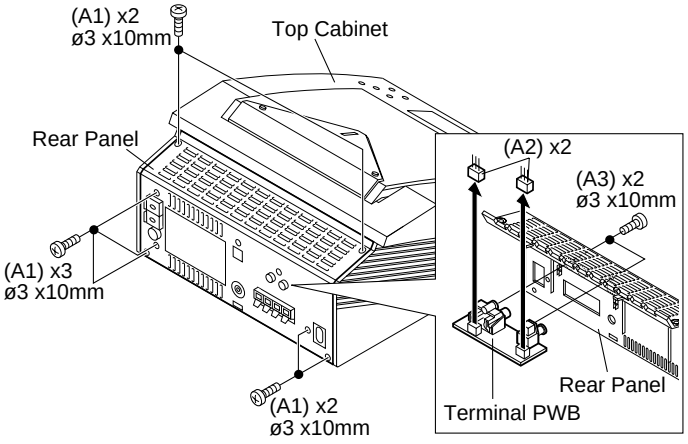



**Figure 8-1**

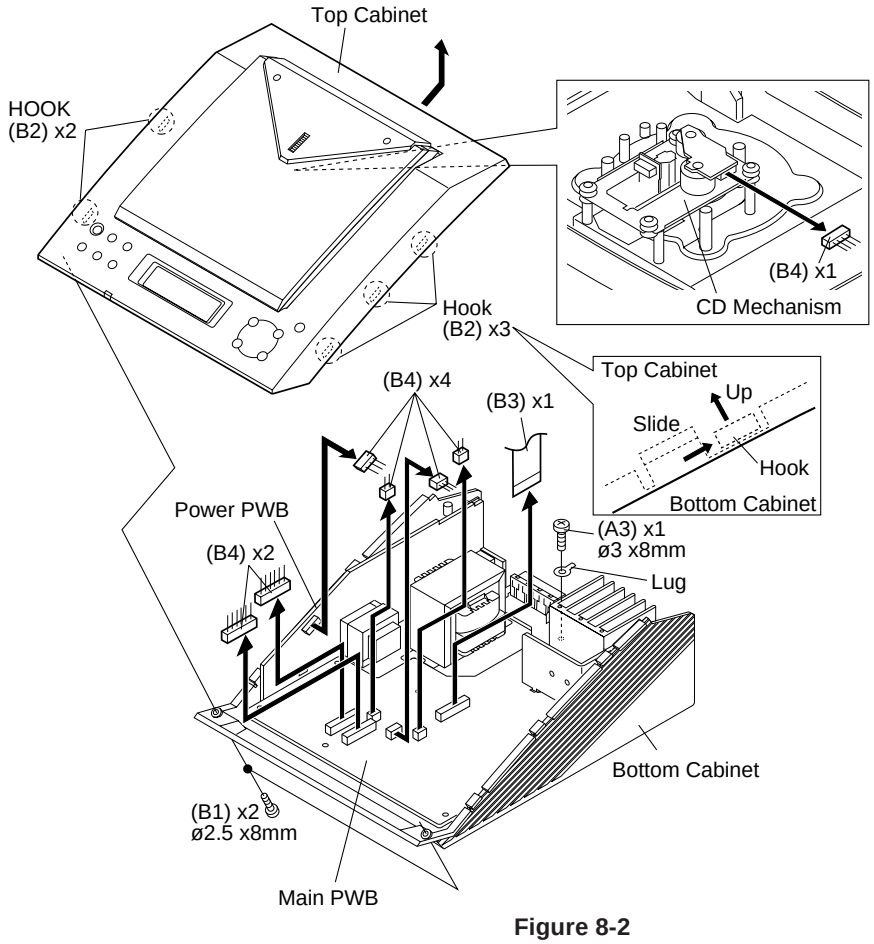



**Figure 8-2**

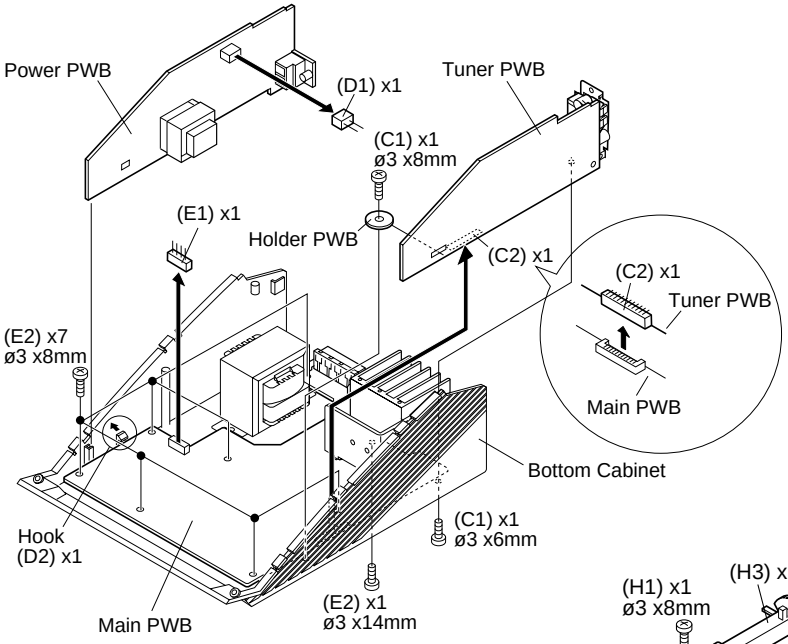



**Figure 9-1**

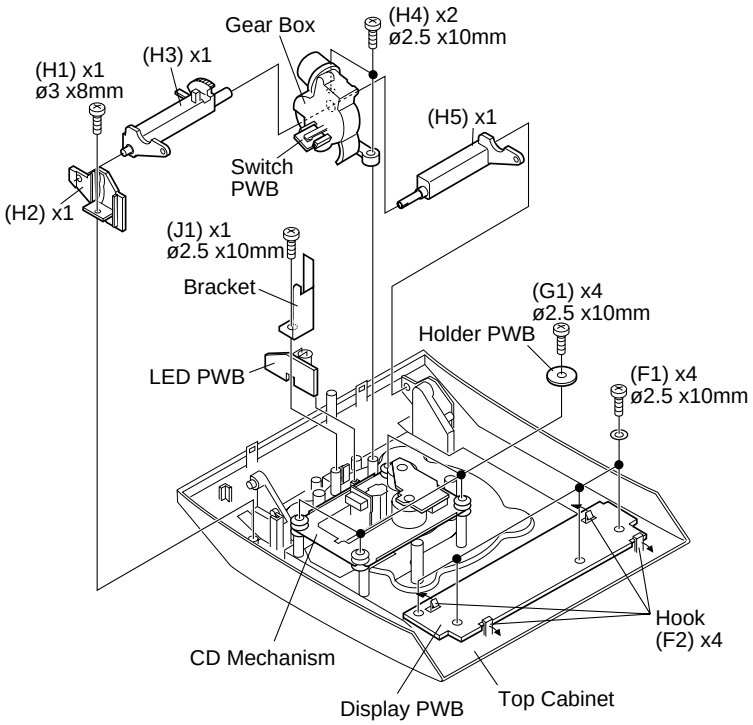



**Figure 9-2**

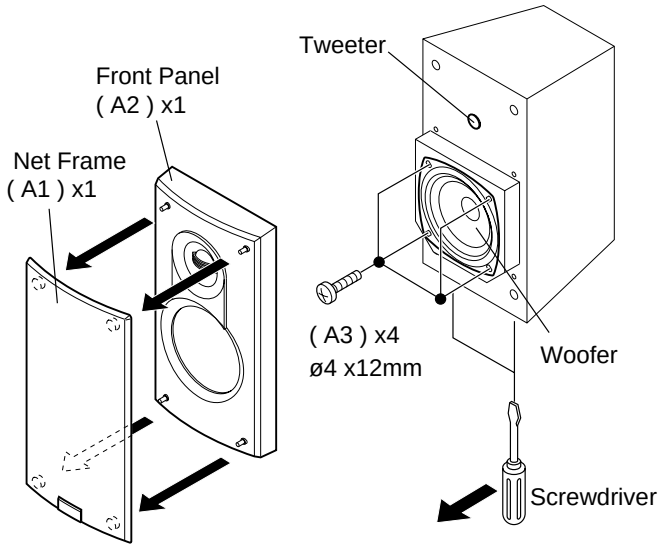



**Figure 9-3**

| STEP | REMOVAL | PROCEDURE | FIGURE |
|---|---|---|---|
| 1 | Speaker | 1. Net Frame ..... (A1) x1<br>2. Front Panel ..... (A2) x1<br>3. Screw ..... (A3) x4 | 9-3 |

# REMOVING AND REINSTALLING THE MAIN PARTS

## How to remove the CD lid (See Fig. 10-1.)

Perform steps 1,2 and 8 of the disassembly method to remove the gear box.(See page 8,9)

1. Remove the switch PWB.
2. Remove the screws (A1) x 4 pcs., to remove the gear box lid.
3. Remove the gears (A2) x 1 pc. and (A3) x 1 pc.
4. Remove the screws (A4) x 2 pcs., to remove the motor.

**Caution:**

Be careful so that the gear is not damaged.
(The damage gear emits noise during searching.)

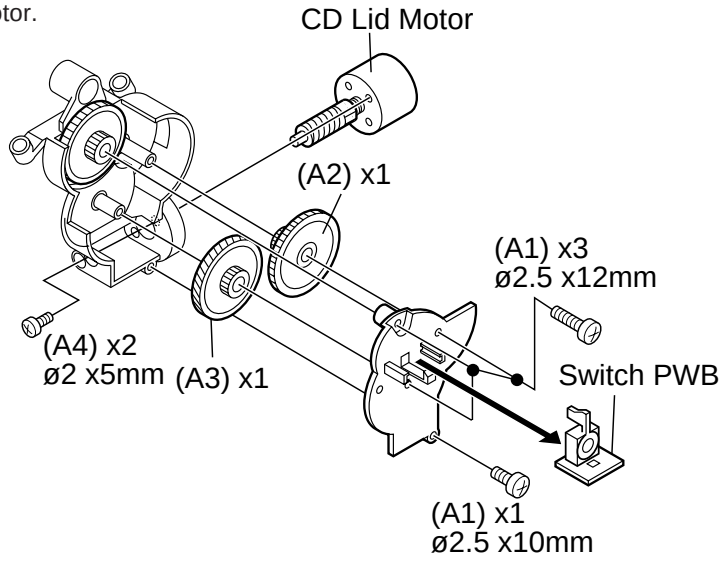



**Figure 10-1**

## CD MECHANISM SECTION (See Fig. 10-2.)

Perform steps 1,2 and 7 of the disassembly method to remove the CD mechanism.(See page 8,9)

1. Remove the mechanism cover, paying attention to the pawls (A1)x 4 pcs.
2. Remove the screws (A2) x 2 pcs., to remove the shaft (A3) x 1 pc.
3. Remove the stop washer (A4) x 1 pc., to remove the gear (A5) x 1 pc.
4. Remove the pickup.

**Note:**

After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of connector remove to pretect the optical pickup from electrostatic damage.

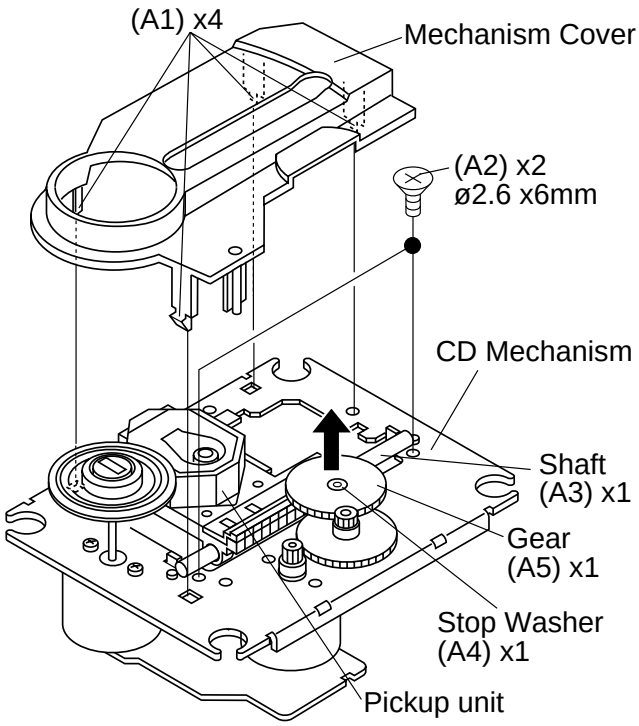



**Figure 10-2**

# ADJUSTMENT

## TUNER SECTION

fL: Low-range frequency
fH: High-range frequency

**• AM IF/RF**

Signal generator: 400 Hz, 30%, AM modulated

| Frequency | Frequency | Display | Setting/ Adjusting Parts | Instrument Connection |
|---|---|---|---|---|
| AM IF | 450 kHz | 1,620 kHz | T351 | *1 |
| AM Band Coverage | — | 522 kHz | (fL): T306 1.1 ± 0.1 V | *2 |
| AM Tracking | 990 kHz | 990 kHz | (fL): T302 | *1 |

*1. Input: Antenna, Output: Speaker Terminal
*2. Input: Input is not connected, Output: TP301

**• Setting the Test Mode**

Keeping the FF/FWD button and MEMORY/SET button pressed, turn on ON/STAND-BY. Then, the frequency is initially set in the memory as shown in Table. Call it with the VOLUME UP/DOWN button to use it for adjustment and check of tuner circuit.

| Preset No. | FM | Preset No. | AM |
|---|---|---|---|
| 1 | 87.50 MHz | 6 | 522 kHz |
| 2 | 108.00 MHz | 7 | 1,620 kHz |
| 3 | 98.00 MHz | 8 | 990 kHz |
| 4 | 90.00 MHz | 9 | 603 kHz |
| 5 | 106.00 MHz | 10 | 1,404 kHz |

**• FM Mute Level**

Signal generator: 1 kHz, 40 kHz dev., FM modulated

| Frequency | Display | Adjusting Parts | Instrument Connection |
|---|---|---|---|
| 98.00 MHz (30 dBμV) | 98.00 MHz | VR351*1 | Input: SO301 Output: Speaker Terminal |

*1. Adjust so that an output signal appears.

**• Check FM VT**

Signal generator: 1 kHz, 40 kHz dev., FM modulated

| Frequency | Display | Check Point | Instrument Connection |
|---|---|---|---|
| 87.5 MHz | 87.5 MHz | 2.2 V ± 0.7 V | TP301 |
| 108 MHz | 108 MHz | 7.3 V ± 1.0 V | TP301 |

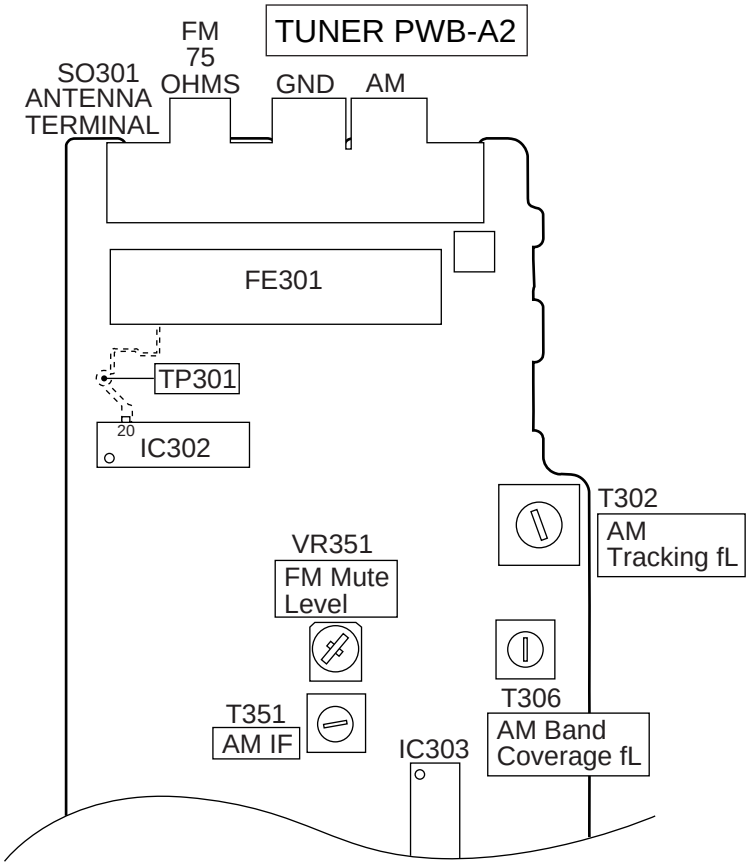



**Figure 11 ADJUSTMENT POINTS**

# TEST MODE

The test mode applied to this microcomputer has three modes, namely the ordinary test mode for adjustment or measurement, the aging test mode, and the self-diagnosis test mode for self-judgment in case of final product inspection.

**1. Turning on the test mode**

For obtaining each test mode, press the ON/STAND-BY button, while keeping pressing the following two buttons in the ordinary stand-by mode (power off ). In this case, the main unit buttons are valid. When turning the ON/STAND-BY on with remote control buttons, test modes are not obtained.

[Ordinary test mode]

1. CD Test Mode (TEST 1).....REW/PRESET DOWN + VOLUME UP
2. Tuner Test Mode (TEST 2).....REW/PRESET DOWN + CD PLAY
3. Electronic Volume Test Mode (TEST 3)..... REW/PRESET DOWN + FF/PRESET UP
4. Timer Test Mode (TEST 4).....FUNCTION + VOLUME UP
5. LCD Test Mode (TEST 5).....FUNCTION + FF/PRESET UP
6. Electric CD Lid Aging Test Mode (TEST 8)..... FUNCTION + CD PLAY

[Self-diagnosis Test Mode]

1. Button input diagnosis test mode (TEST6).……...FUNCTION + VOLUME

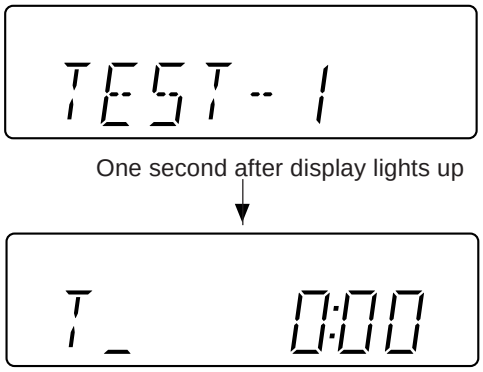
Processes are different depending on destinations at initial settings.

**2. CD Test Mode (TEST 1)**

In the CD test mode the operation of each step is possible even if the LID-SW is off. If focus cannot be taken in step 3 or any error is processed, it is impossible to proceed to the next step. During error processing, end the test mode by pressing the ON/STAND-BY button or return to the step 1 by pressing the CD STOP button. Any other operations are inhibited.

**1. Step 1 Mode**

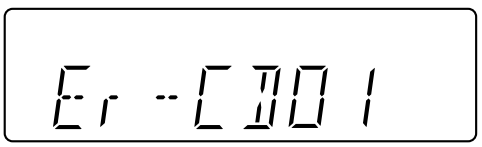
When the CD test mode is obtained, the following display lights up. Then CD initialization operation flow proceeds up to CD STB off to wait for the following buttons to be pressed.




Press the following buttons in this state to obtain the operations specified below.

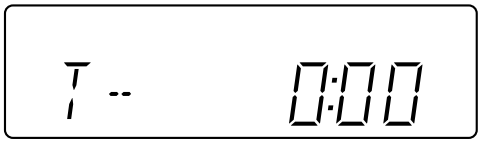
"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... After the pickup returns to the innermost periphery, it slides toward the outer periphery while this button is pressed.
"REW/REV" ..... After the pickup returns to the innermost periphery, it slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Shift to step 2
"STOP" ..... Invalid
"FUNCTION" ..... Shift to step 5

* In case of initialization, the pickup is moved toward the inner periphery. Any buttons other than "ON/STAND-BY" button are not accepted until the shift of pickup to the inner periphery is completed at this time. If PICKUP IN SW ON cannot be detected within 10 seconds, the slide motor stops, and the following error display appears. Press the ON/STAND-BY button to end the test mode, or press the CD STOP button to return to step 1. Any other operations are inhibited.



**2. Step 2 Mode**

Press the "CD PLAY" button in this mode to transmit the laser lighting command LDON (8400) and turn on the laser. Any other operations are not performed in this case.

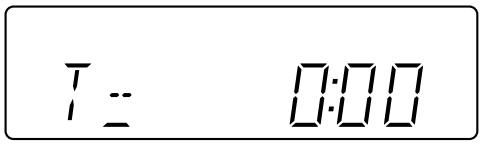



Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Shift to step 3
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 5

**3. Step 3 Mode**

While the laser keeps lighting, CD initialization operation flow proceeds up to 'CLV servo ON' to wait for the following buttons to be pressed.(Focus servo turned on for focus search)
The focus search is repeated to take focus.

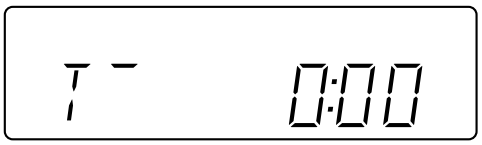



Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... If focus has been taken, shift to step 4 is executed. If not, acceptance is inhibited.
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 5
*If the focus is not received after it has been taken, the process returns to step 1.

**4. Step 4 Mode**

The CLV servo ON command (8600) is transmitted to wait for the following buttons to be pressed. (The disc is rotated for CLV lock.)



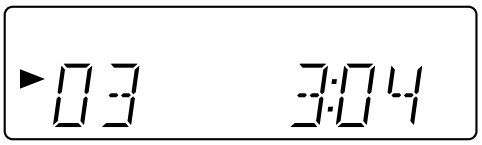

The time display always indicates "0:00".

Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Shift to step 5
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 5
*If the focus is not received, the process returns to step 1.

**5. Step 5 Mode**

When the CD initialization operation flow is completed, the mute is turned off, and playback is started. Even if playback reaches the outermost periphery of disc, the operation does not stop. The LCD display indicates the playback passage time as in case of ordinary CD playback.




Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Invalid
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 6
"MEMORY" ..... Shift to step 7
*If the is not received, the process returns to step 1.

Other cautions
• TOC IL is not available for this test mode.

**6. Step 6 Mode**

Press the FUNCTION button during step 5 operation to set EC/FC bit to "H" by PROSET command (9188 transmission) and to monitor BUS2 (QDRE) during idle mode. The number of errors for 1 frame (1 sub-code block in IC data) is read by read command SRC6 during "H". The number of errors accumulated in 750 frames for 10 seconds is displayed on LCD. During the display, music signal is played back.

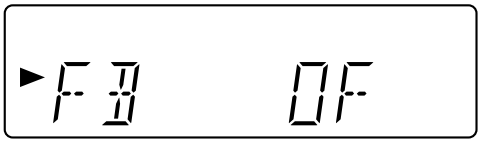
Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Invalid
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 5
"MEMORY" ..... Shift to step 7

Press FF/PRESET UP or REW/PRESET DOWN button to slide the pickup. The number of errors accumulated up to that time is cleared and addition is restarted after shift.
*If the focus is not received, the process returns to step 1.

**7. Step 7 Mode**

Press "MEMORY" key during step 6 operation to display automatically adjusted values on LCD in the order as below. Item names are displayed by left alignment, and adjusted values by right alignment in hexadecimal numbers. Operations other




than display are as same as those for step 5.

a) "Fb" is displayed on the left of LCD. FTBAST command (D480) is transmitted to designate focus balance adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (b).
b) "FG" is displayed on the left of LCD. FTBAST command (D481) is transmitted to designate focus gain adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. The upper two bits, which are invalid, are displayed as "00". After waiting two seconds, operation is shifted to (c).
c) "Tb" is displayed on the left of LCD. FTBAST command (D482) is transmitted to designate tracking balance adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (d).
d) "TG" is displayed on the left of LCD. FTBAST command (D483) is transmitted to designate tracking gain adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. The upper two bits, which are invalid, are displayed as "00". After waiting 2 seconds, operation is shifted to (e).
e) "FO" is displayed on the left of LCD. FTBAST command (D484) is transmitted to designate focus offset adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (f).
f) "TO" is displayed on the left of LCD. FTBAST command (D485) is transmitted to designate tracking offset adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (g).
g) "FF" is displayed on the left of LCD. FTBAST command (D486) is transmitted to designate RF amplitude adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (a).

Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Invalid
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 6
"MEMORY" ..... Shift to step 5
*If the focus is not received, the process returns to step 1.

**3. Tuner Test Mode (TEST 2)**

**1. Outline of tuner (radio) test mode**

The tuner test mode is intended to store the adjustment and measurement frequencies in the preset memory CH. When adjusting the tuner section in the production line, adjusting personnel are not required to set frequency.

**2. Details of tuner test mode**

Press the "REW/PRESET DOWN" and "CD PLAY" buttons in POWER OFF state and turn on the power by the use of "ON/STAND-BY" button to preset and store frequency for adjustment and measurement of destination specified by the AREA terminal in the preset memory CH. However, Ordinary 1 and Ordinary 2 are stored in the destinations (selected by SPAN switching operation) when the test mode is obtained.

("FF⏭" + "MEMORY/SET" KEY SPAN CHANGE)

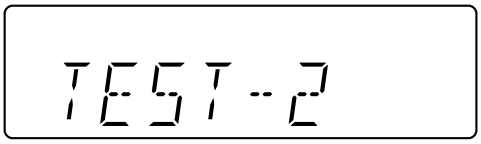
(As for frequencies to be preset and stored for each destination, refer to item 3.)

The tuner test mode is started from preset No.1.

The operations of test mode are identical with the ordinary operations of TUNER function. FUNCTION switching is invalid.

It is necessary to discard the content of preset memory when the tuner test mode is ended; be sure to write "0000" or "1111" bits in the memory to be checked for judging memory error at initial setting and to initialize memory.

When the tuner test mode is obtained, the following display lights for one second.




• The TUNER TEST2 mode is obtained with >> + MEMORY + ON/STAND-BY. ->Turn off AC in the TEST2 mode to restore the initial state.

↓

Turn off POWER to protect the memory of TEST2 mode.
Turn off POWER again to obtain the ordinary operation while the data is stored in the memory (besides TUNER).

↓

If AC OFF state is maintained in this state for about 1/2 day, start is executed in the initial state.

• To clear the whole memory, insert the AC cord, pressing MEMORY + CD PLAY.

**3. Preset frequencies for various destinations (random preset memory)**

| CH | BAND | FM |
|---|---|---|
| 1 | | FM 87.50 MHz |
| 2 | | FM108.00 MHz |
| 3 | FM | FM 98.00 MHz |
| 4 | STEREO | FM 90.00 MHz |
| 5 | | FM106.00 MHz |

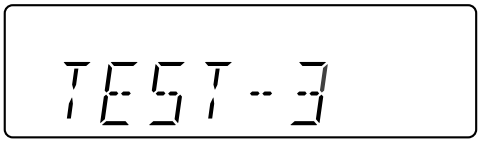
| CH | BAND | AM |
|---|---|---|
| 6 | | AM 522 kHz |
| 7 | | AM1620 kHz |
| 8 | AM | AM 990 kHz |
| 9 | | AM 603 kHz |
| 10 | | AM1404 kHz |

| CH | BAND | FM |
|---|---|---|
| 16-25 | | |
| 26 | | FM106.00 MHz |
| 27 | | FM 90.00 MHz |
| 28 | FM | FM 98.00 MHz |
| 29 | MONO | FM108.00 MHz |
| 30 | | FM 87.50 MHz |

• The slant line sections of the table store no memory.

**4. Electronic volume Test Mode (TEST 3)**

When this test mode is obtained, the following display lights for one second.




In this mode, volume is -14 dB (STEP28), BASS/TREBLE is set to 0 (0 dB) and SURROUND mode to OFF, and start-up function to CD, respectively. The button operations in the test mode are the same as those of ordinary operation except volume UP/DOWN.

(1) The display is the same as that of ordinary operation except test mode setting.

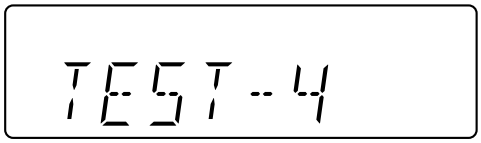
(2) Unlike the ordinary state, the volume is controlled with the volume UP/DOWN button in accordance with the following three steps.

Volume- ∞ (STEP 0) <-> Volume-14 dB (STEP 23) <-> Volume-0 (STEP 30)

(3) BASS/TREBLE and SURROUND are switched when button is pressed..

**5. Timer test Mode (TEST 4)**

When this test mode is obtained, the following display lights for one second.

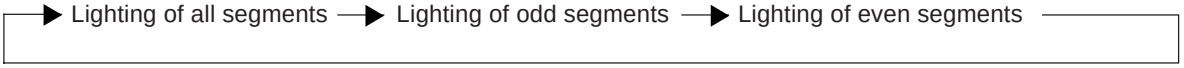



Set the current time and timer time according to the following procedure to reproduce the timer.

1.Set the current time to 1:00, the timer to ON time 1:05, the function to CD, and volume to STEP 12, respectively. One minute is counted as one second, and the timer is reproduced. The fade-in (when playback is started) is executed at a rate of one step for 1 sec. After completion of fade-in, the fade-out is executed at a rate of one step for 1 sec (WAIT 1 sec inserted). After completion of fade-out, the power is turned off (after WAIT 1 sec), and the mode is shifted to the standby. The display during operation is the same as that of ordinary timer operation.

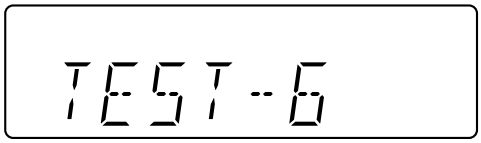
**6. LCD Test Mode (TEST 5)**

When the LCD test mode is obtained, all the LCD segments are lighted. Then pressing the "PLAY" button switches display as below.



**7. Button input diagnosis Test Mode (TEST 6)**

When the test mode is obtained, the following is displayed.



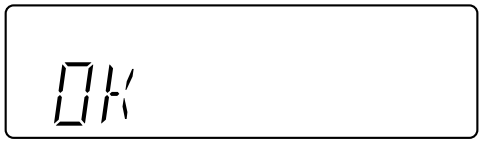

This test mode is intended to check whether all the main unit buttons can be detected. Accordingly, in this test mode, it is checked whether the "ON/STAND-BY" button was pressed after all the buttons shown below were pressed. If the result is OK, OK is displayed. If any one of keys was not pressed, an error is displayed. In both cases of OK termination or error termination, the mode is shifted to the standby mode if the "ON/STAND-BY" button is pressed subsequently.

All models using this type of microcomputer are not always provided with the same buttons. Since the buttons used are different depending on models, types of buttons to be used are determined by whether RDS, SURROUND, and an electric lid are available at the initial setting by MODEL port.

The order of buttons to be pressed is not determined. Accordingly, it is checked whether all buttons have been pressed.

1. PU-IN buttons: REW/PRESET DOWN + CD STOP
   Since this model is provided with SURROUND (HAVE OR NOT), RDS (HAVE OR NOT), and electric CD lid, the following 10 buttons are detected as all buttons.
   PLAY, BASS/TREBLE, FUNCTION, VOLUME UP/DOWN, MEMORY/SET, REW, FF, STOP, CD-OPEN/CLOSE

The OK/NG display of test result is as follows.




**8. Electric CD lid Aging Test Mode (TEST 8) (Only for model with electric CD lid)**

Outline

OPEN/CLOSE operations of electric CD lid are repeated. The number of repeated times and time period are monitored. If the lid does not move to the regular position after the specified time, operation is stopped. When an error is detected by [CLID_PRO] during CLOSE, operation is also stopped.

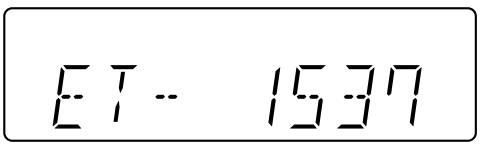
a. POWER ON for function AUX
   CD lid position is checked.
   - CLOSE position: Operation proceeds to the next process.
   - Position other than CLOSE: After the lid moves to CLOSE, operation proceeds to the next process.

b. CD lid operation started
   OPEN operation
   - WAIT 1 second
   - CLOSE operation
   - WAIT 1 second

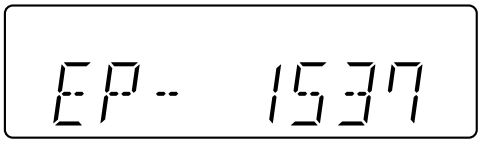
c. Operations above are repeated.
   Specified monitoring time
   - OPEN operation: 5 seconds
   - CLOSE operation: 5 seconds

d. Display
   OPEN>CLOSE is counted as 1. I to 59999 are counted; if the count is over 59999, display is returned to 0 to repeat counting.

Display when the lid does not move to the regular position after the specified time
(Ex: Defective operation occurring in the middle of 1538.)




Highlight display of stop when an error is detected by [CLID-PRO]
(Ex: Defective operation occurring in the middle of 1538.)



# NOTES ON SCHEMATIC DIAGRAM

- Resistor:
  To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor. Besides, the one with “Fusible” is a fuse type.
- Capacitor:
  To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-micro-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression “capacitance/withstand voltage” is used.
  (CH), (TH), (RH), (UJ): Temperature compensation
  (ML): Mylar type
  (P.P.): Polypropylene type
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
  1. In the tuner section,
     ( ) : AM mode
     : FM stereo mode
  2. In the CD section, the CD is stopped.
- Parts marked with “⚠” ( ⊏ ニ ニ ニ ⊐ ) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

| REF. NO | DESCRIPTION | POSITION |
|---|---|---|
| NSW801 | PICKUP IN | ON—OFF |
| SW709 | ON/STAND-BY | ON—OFF |
| SW710 | CD LID OPEN/CLOSE | ON—OFF |
| SW711 | FF/PRESET UP | ON—OFF |
| SW712 | CD PLAY/PAUSE/TUNING UP | ON—OFF |
| SW713 | VOLUME UP | ON—OFF |
| SW718 | VOLUME DOWN | ON—OFF |

| REF. NO | DESCRIPTION | POSITION |
|---|---|---|
| SW721 | BASS/TREBLE | ON—OFF |
| SW722 | MEMORY SET | ON—OFF |
| SW725 | CD STOP/TUNING DOWN | ON—OFF |
| SW726 | REW/PRESET DOWN | ON—OFF |
| SW727 | FUNCTION | ON—OFF |
| SW802 | CD LID | ON—OFF |

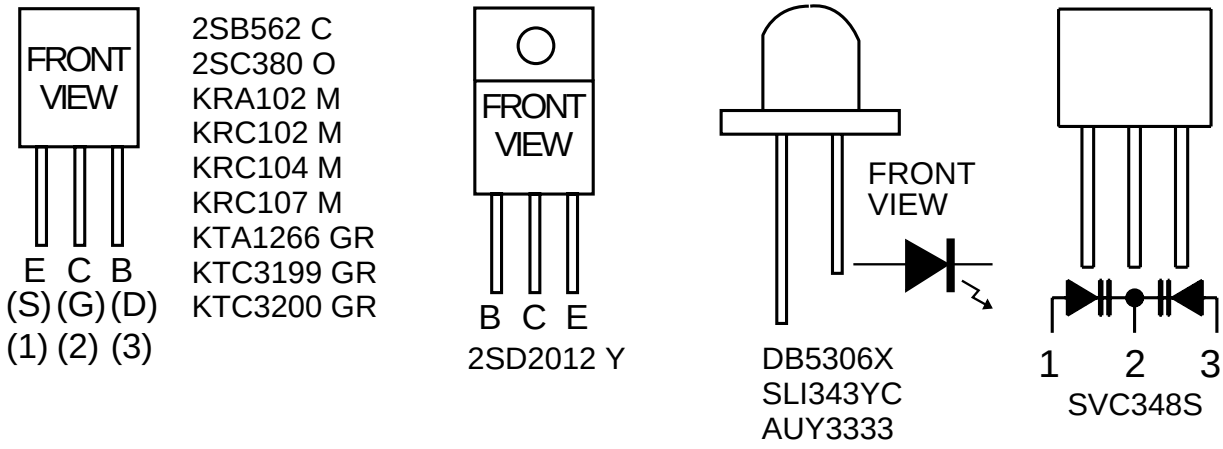
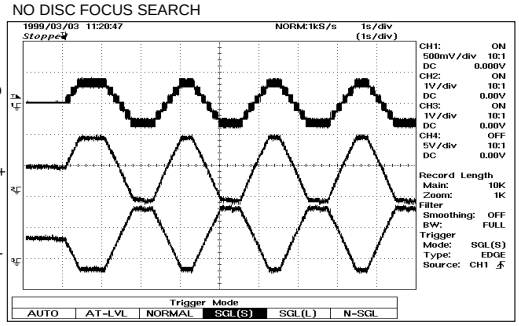



**Figure 19 TYPES OF TRANSISTOR AND LED**

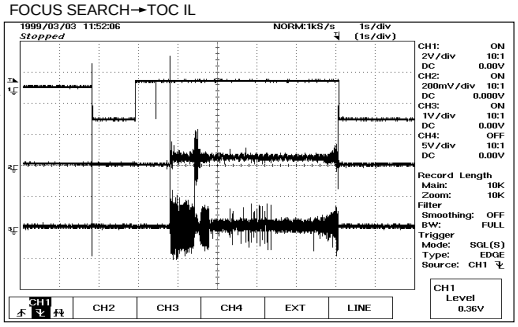
# WAVEFORMS OF CD CIRCUIT

NO DISC FOCUS SEARCH



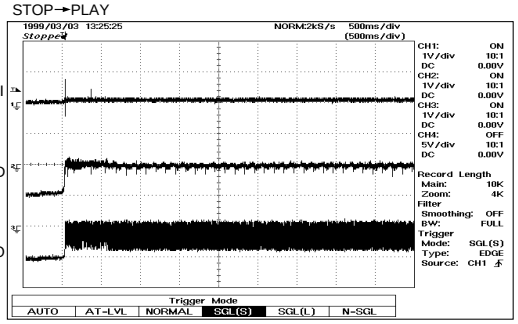
1 FOO — IC802 48pin
2 FO+ — IC804 26pin
3 FO- — IC804 25pin

FOCUS SEARCH→TOC IL



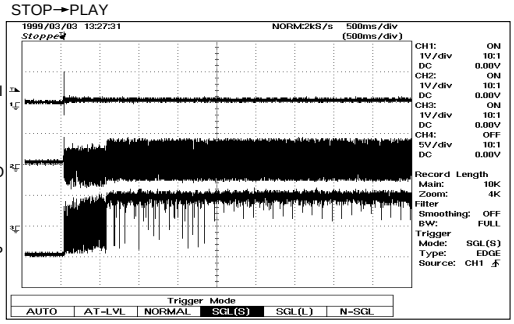
4 SEL — IC802 57pin
5 FEI — IC802 43pin
6 TEI — IC802 46pin

STOP→PLAY



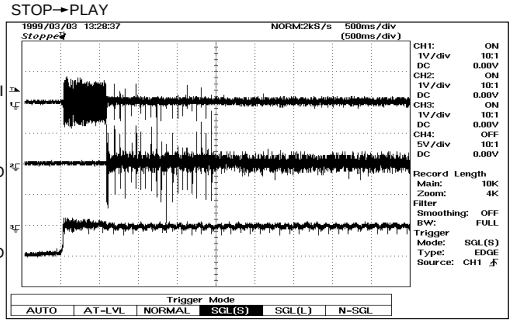
5 FEI — IC802 43pin
7 SBAD — IC802 44pin
8 RFO — IC801 22pin

STOP→PLAY



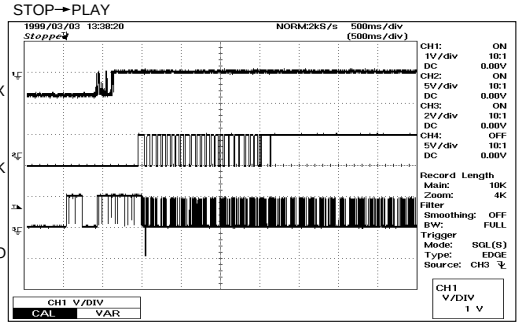
5 FEI — IC802 43pin
9 RFGO — IC801 19pin
10 RFRP — IC801 17pin

STOP→PLAY



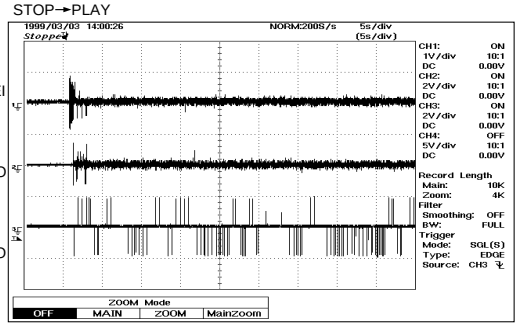
6 TEI — IC802 46pin
11 TRO — IC802 49pin
7 SBAD — IC802 44pin

STOP→PLAY



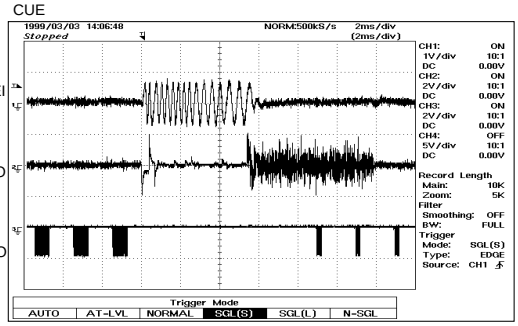
12 TMAX — IC802 30pin
13 SBOK — IC802 12pin
14 DMO — IC802 55pin

STOP→PLAY



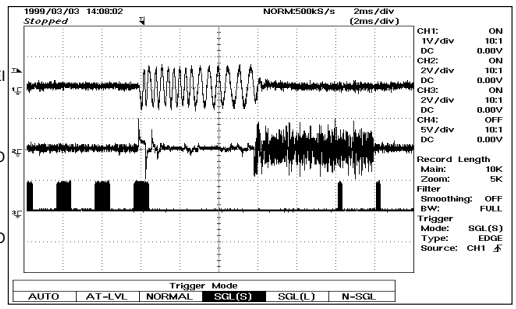
6 TEI — IC802 46pin
11 TRO — IC802 49pin
15 FMO — IC802 53pin

CUE



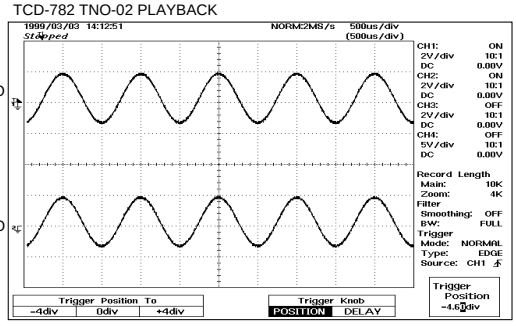
6 TEI — IC802 46pin
11 TRO — IC802 49pin
15 FMO — IC802 53pin

REVIEW



6 TEI — IC802 46pin
11 TRO — IC802 49pin
15 FMO — IC802 53pin

TCD-782 TNO-02 PLAYBACK



16 LO — IC802 85pin
17 RO — IC802 82pin

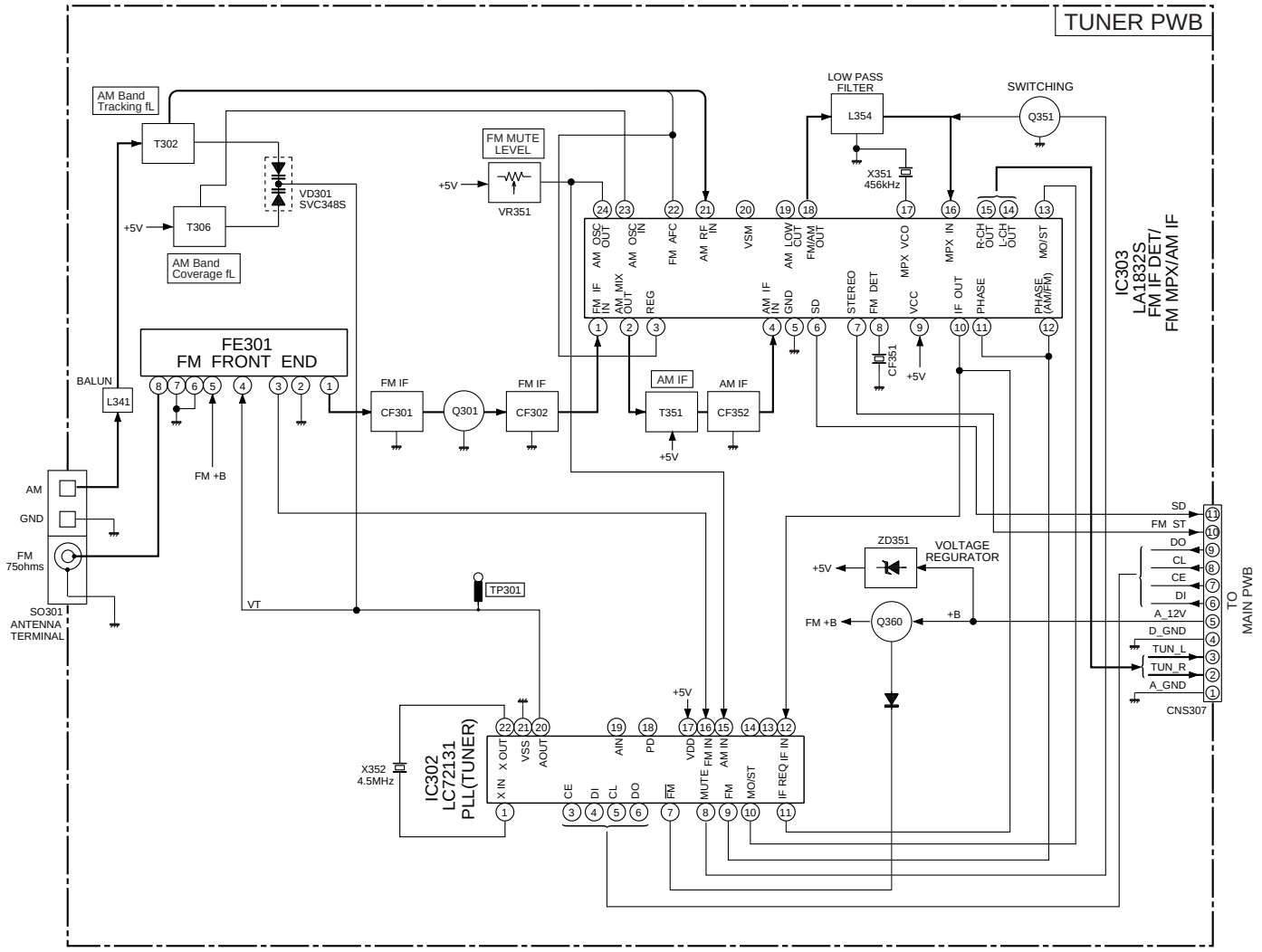



**Figure 21 BLOCK DIAGRAM (1/5)**

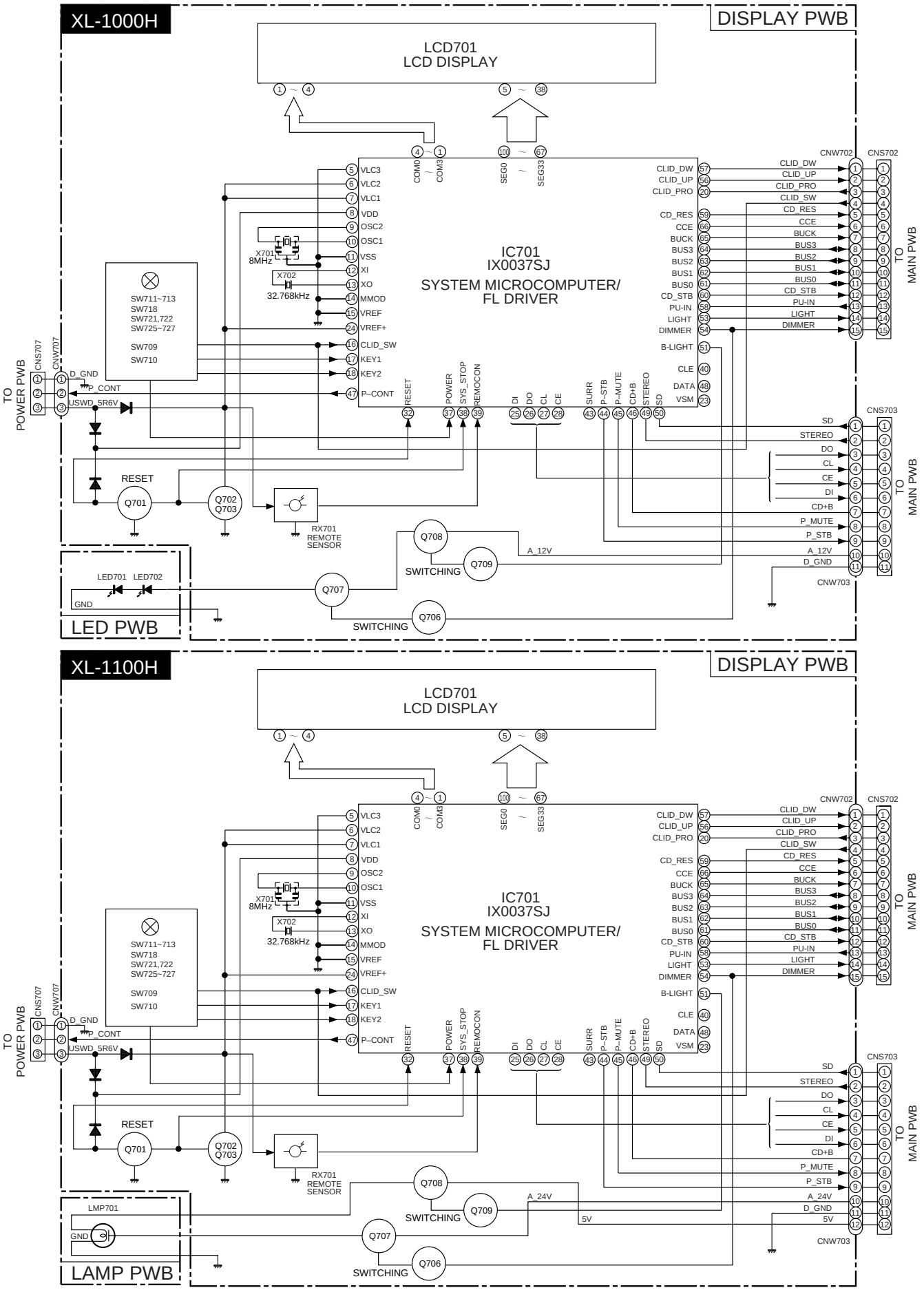



**Figure 22 BLOCK DIAGRAM (2/5)**

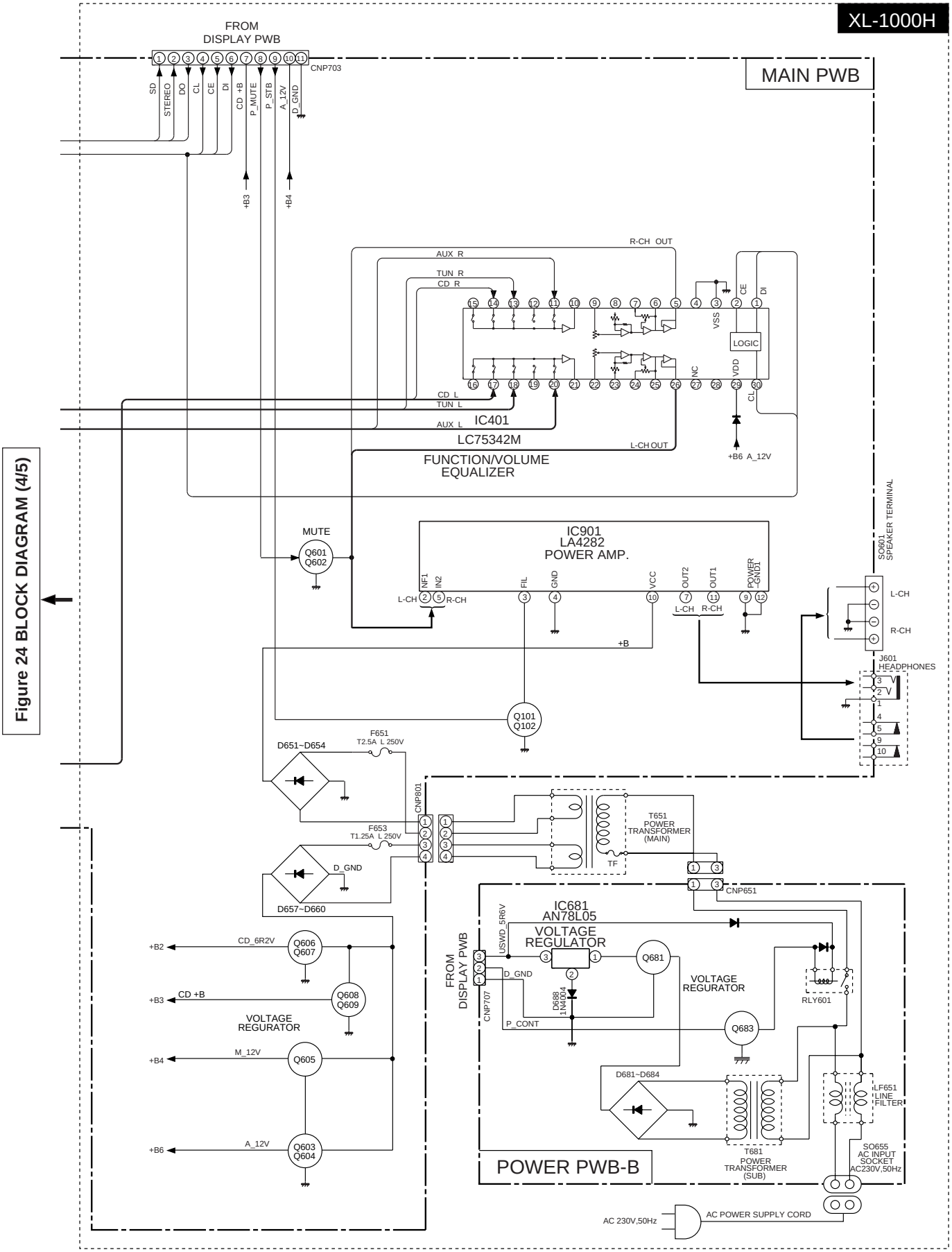



**Figure 24 BLOCK DIAGRAM (4/5)**

**Figure 23 BLOCK DIAGRAM (3/5)**

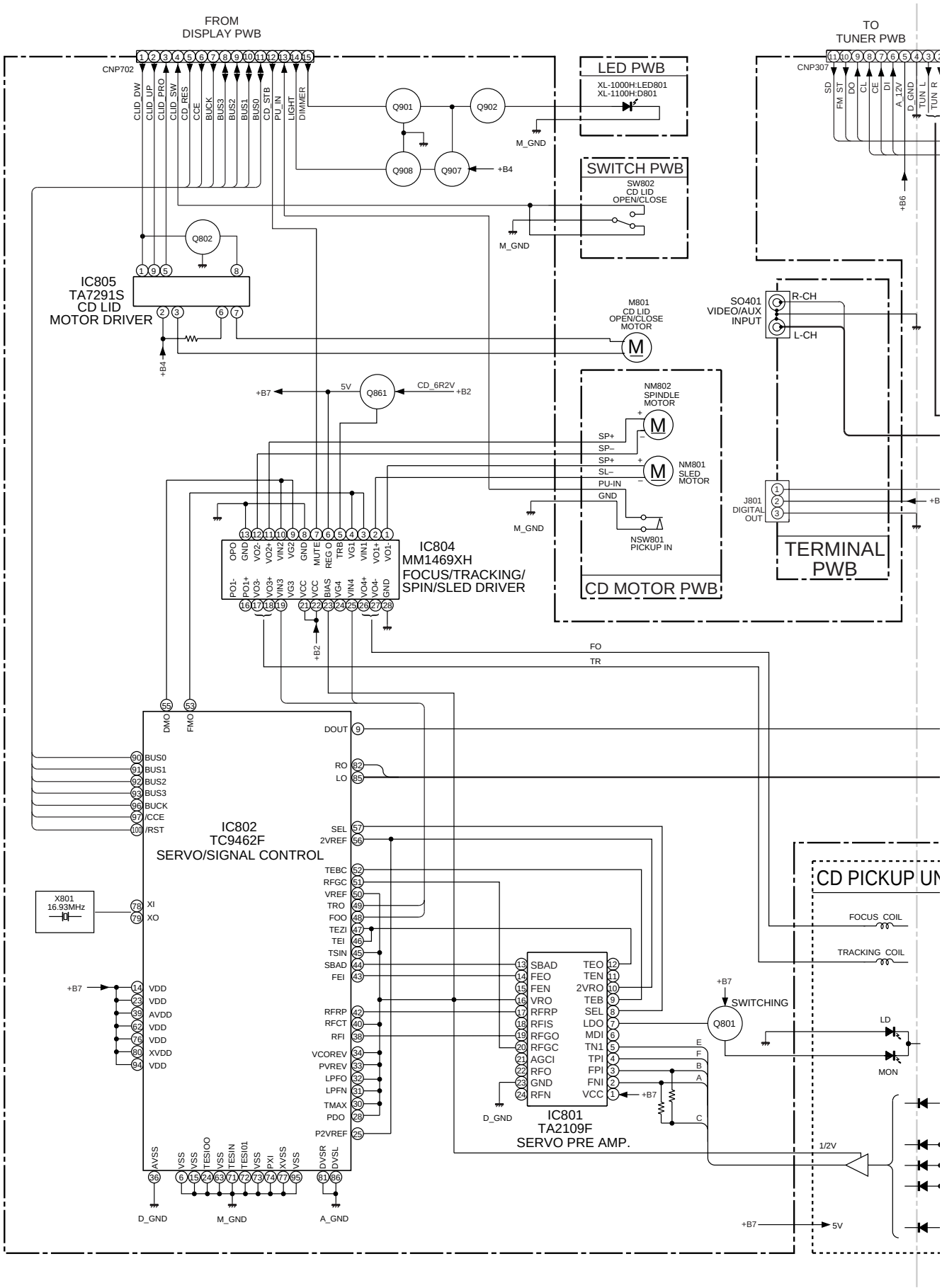



**Figure 24 BLOCK DIAGRAM (4/5)**

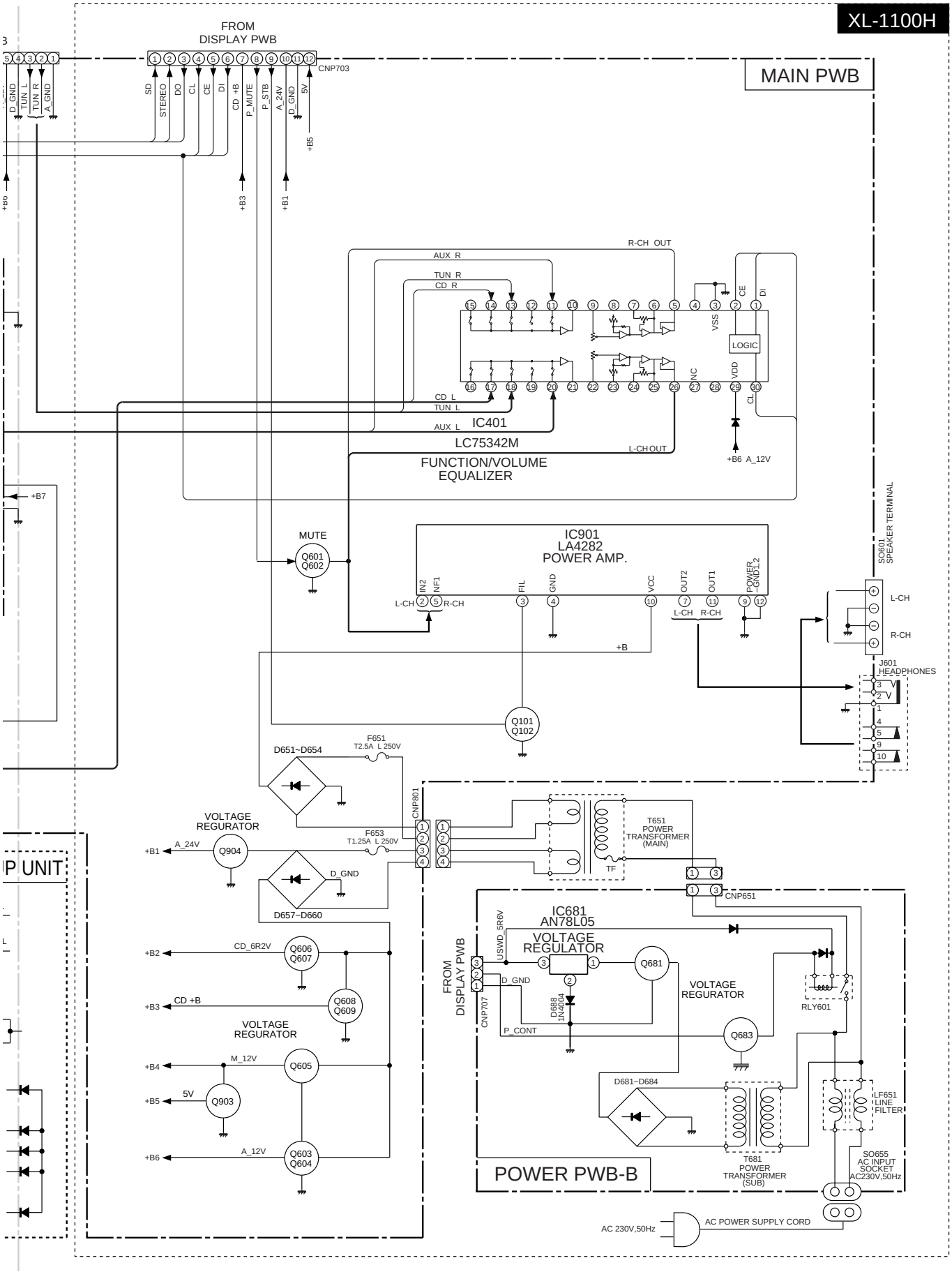
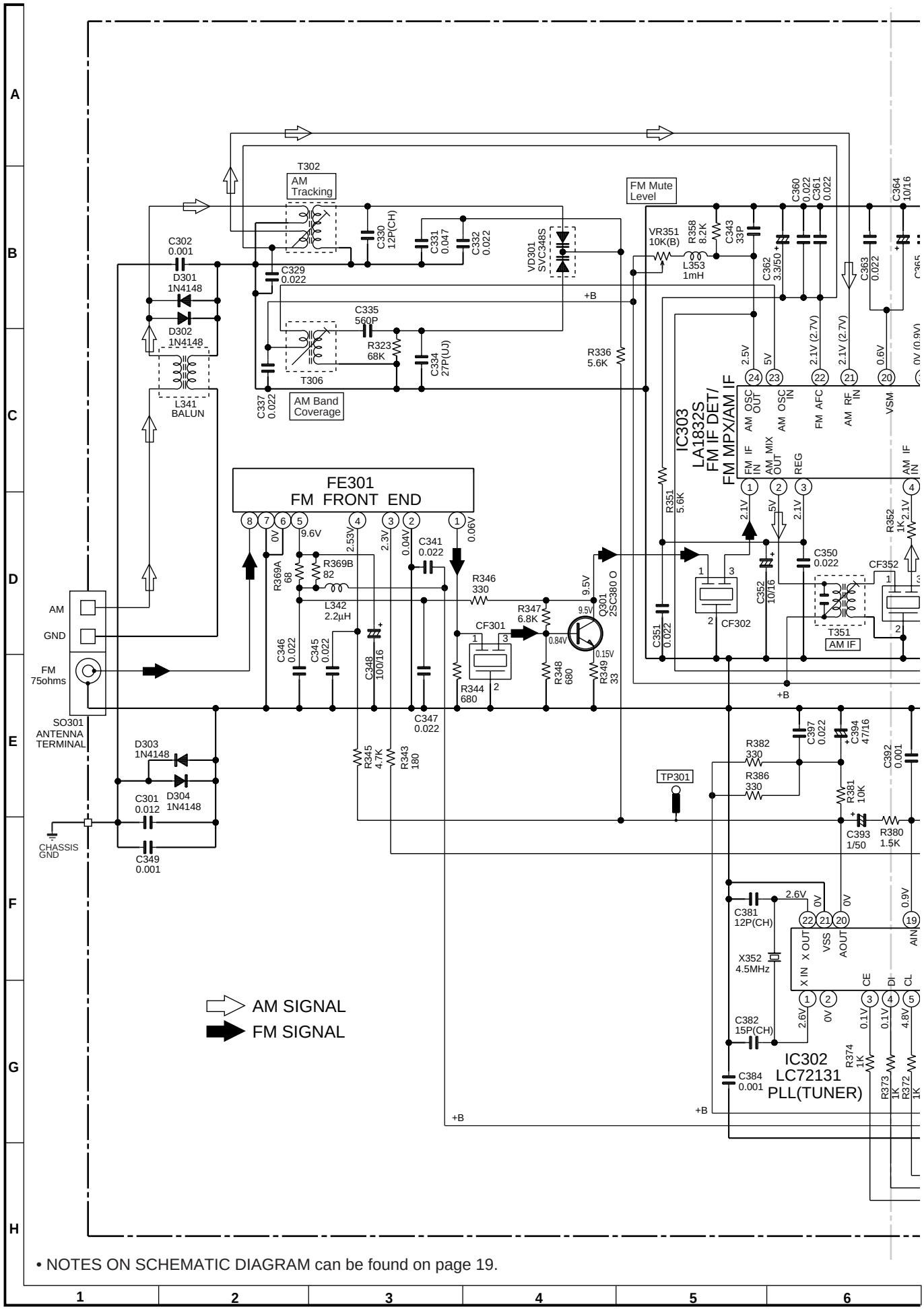
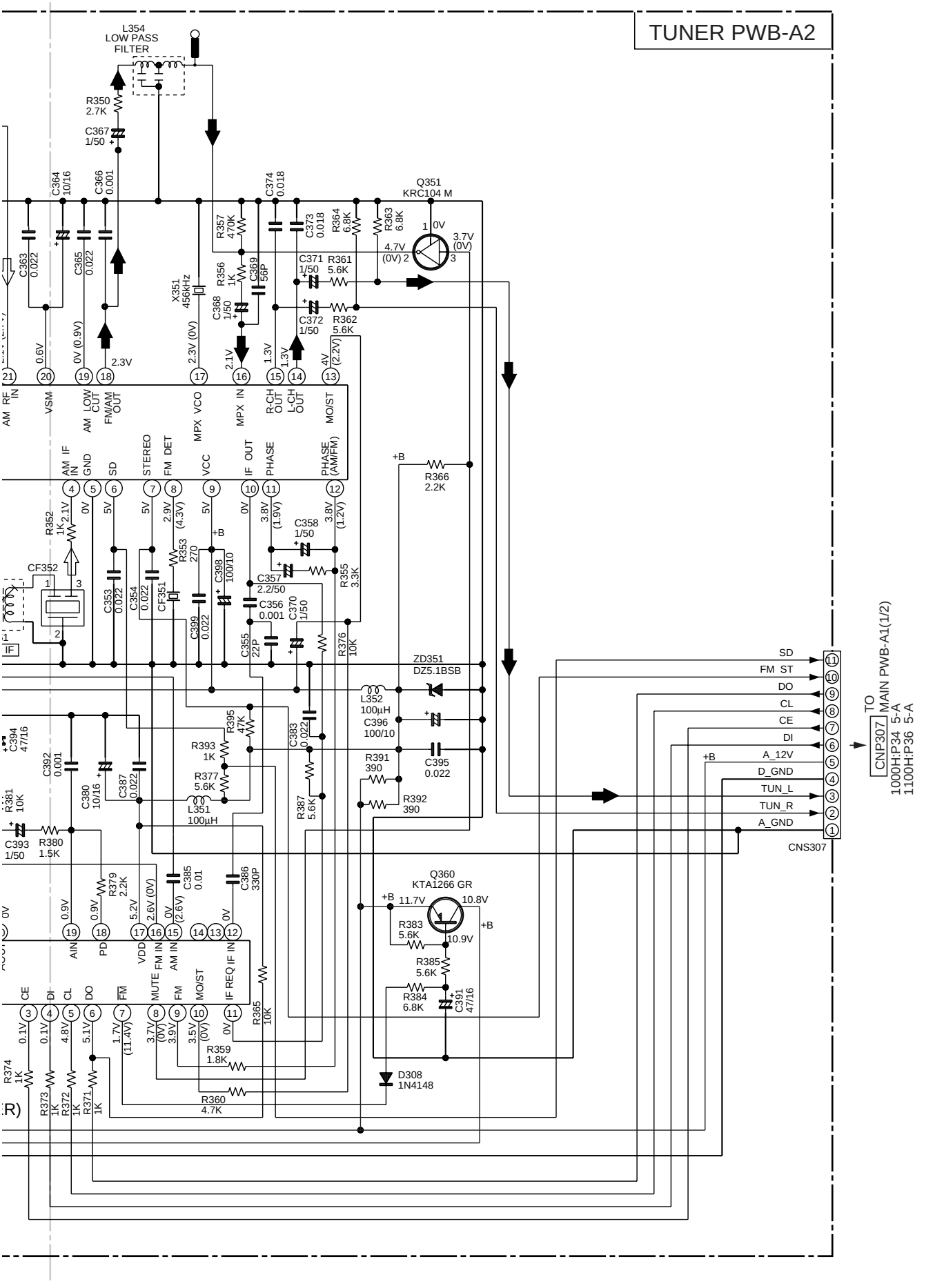



**Figure 25 BLOCK DIAGRAM (5/5)**



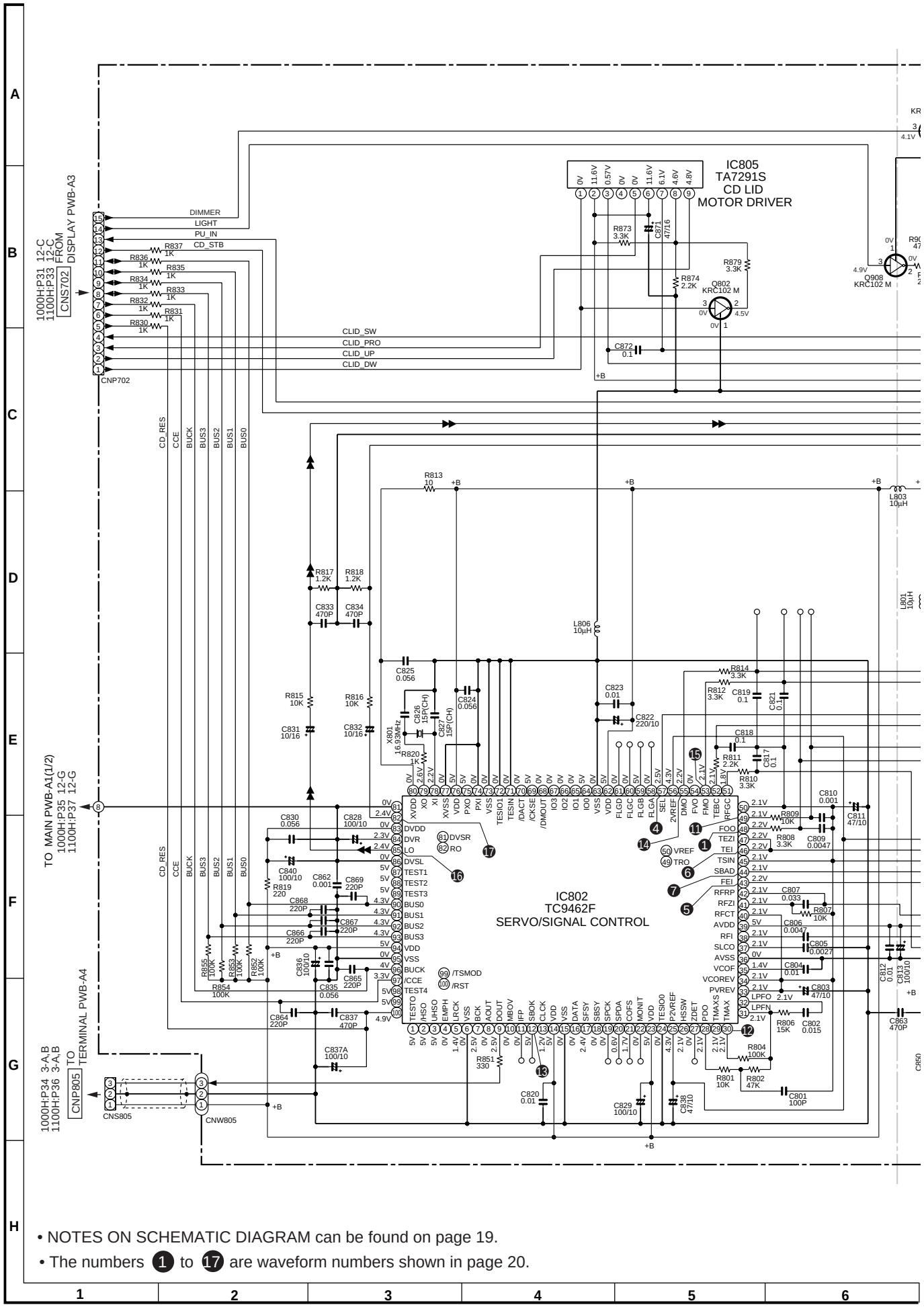

• NOTES ON SCHEMATIC DIAGRAM can be found on page 19.

**Figure 26 SCHEMATIC DIAGRAM (1/12)**




| 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|

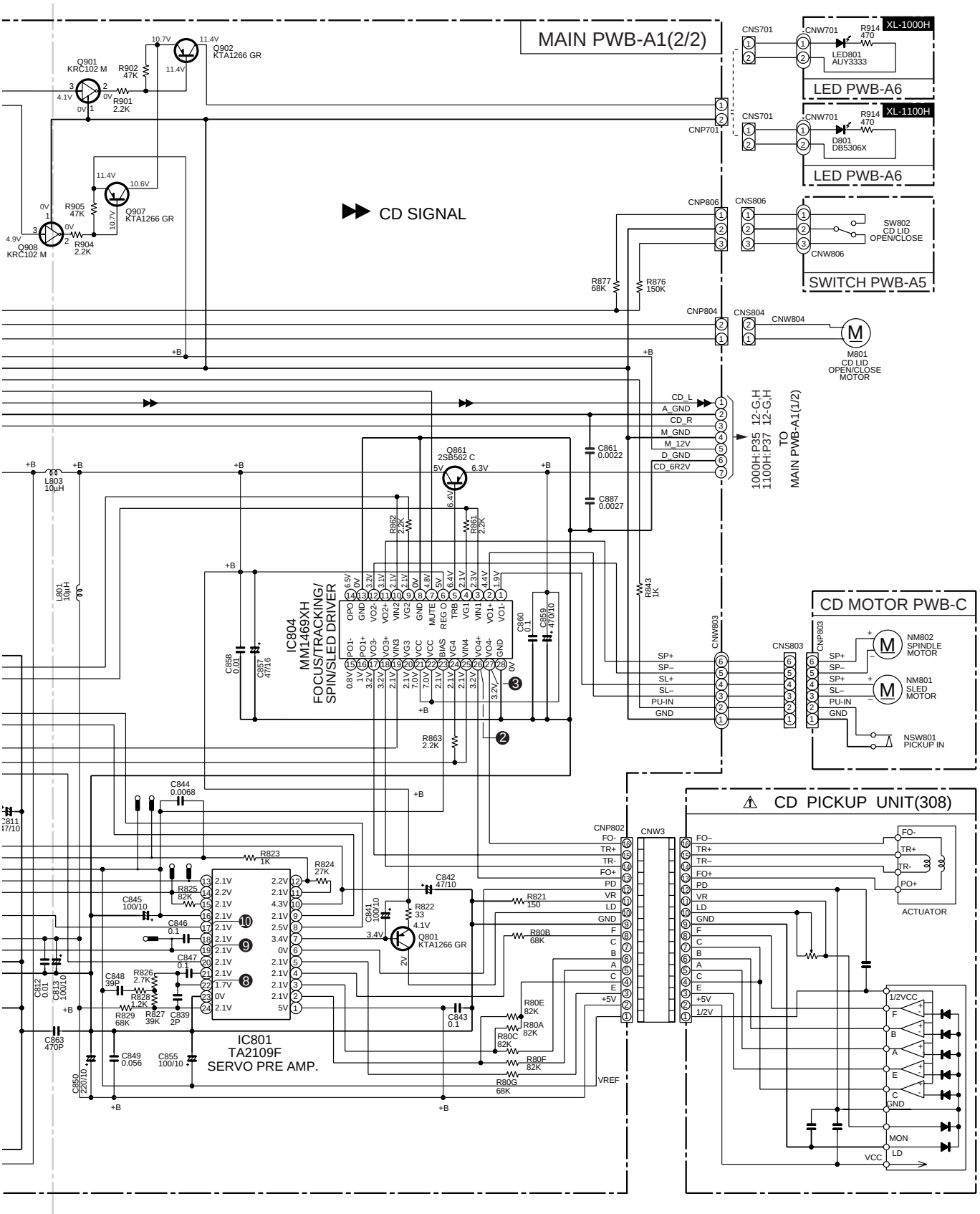
**Figure 27 SCHEMATIC DIAGRAM (2/12)**




• NOTES ON SCHEMATIC DIAGRAM can be found on page 19.

• The numbers ❶ to ⓱ are waveform numbers shown in page 20.

**Figure 28 SCHEMATIC DIAGRAM (3/12)**




| 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|

**Figure 29 SCHEMATIC DIAGRAM (4/12)**

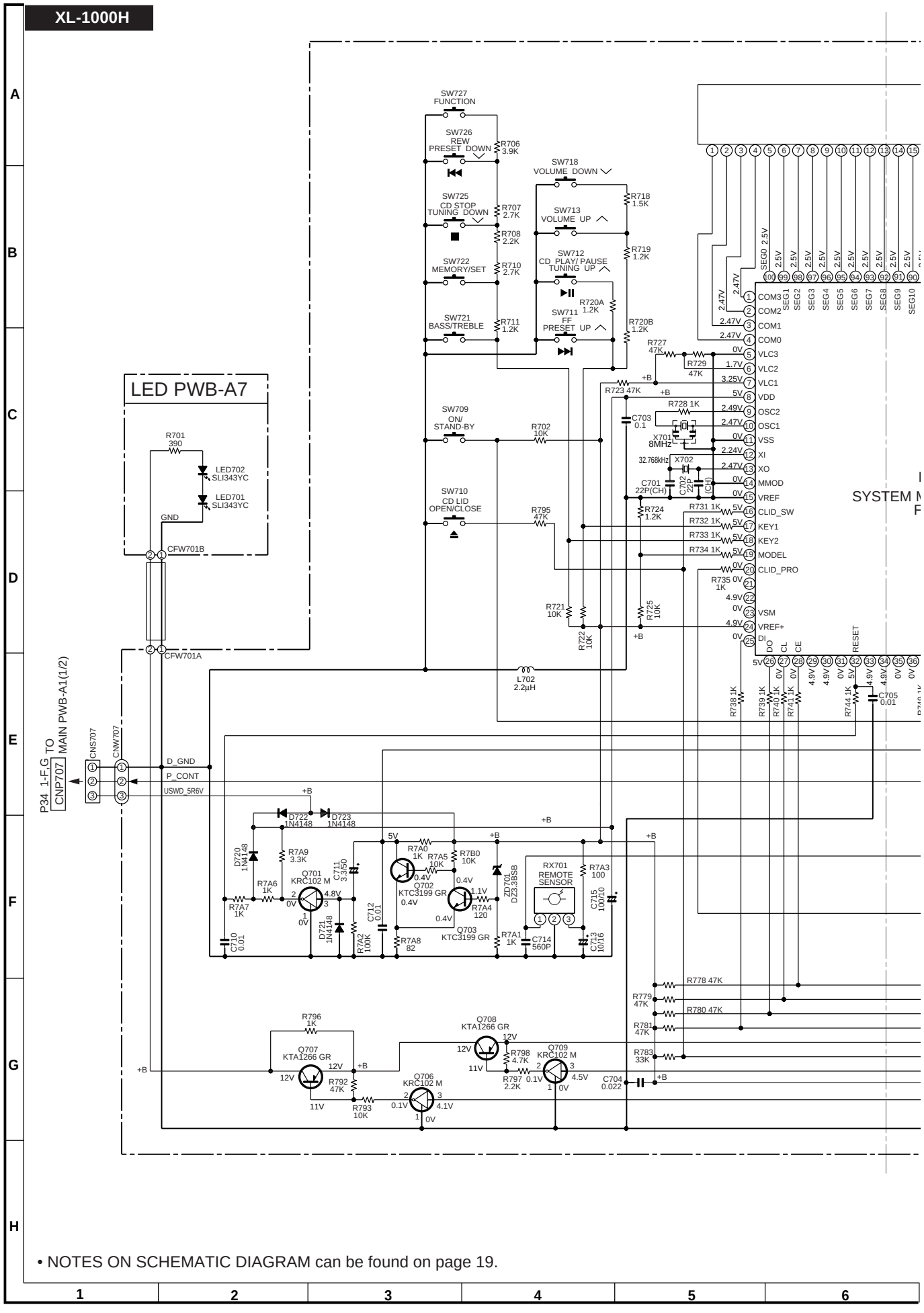
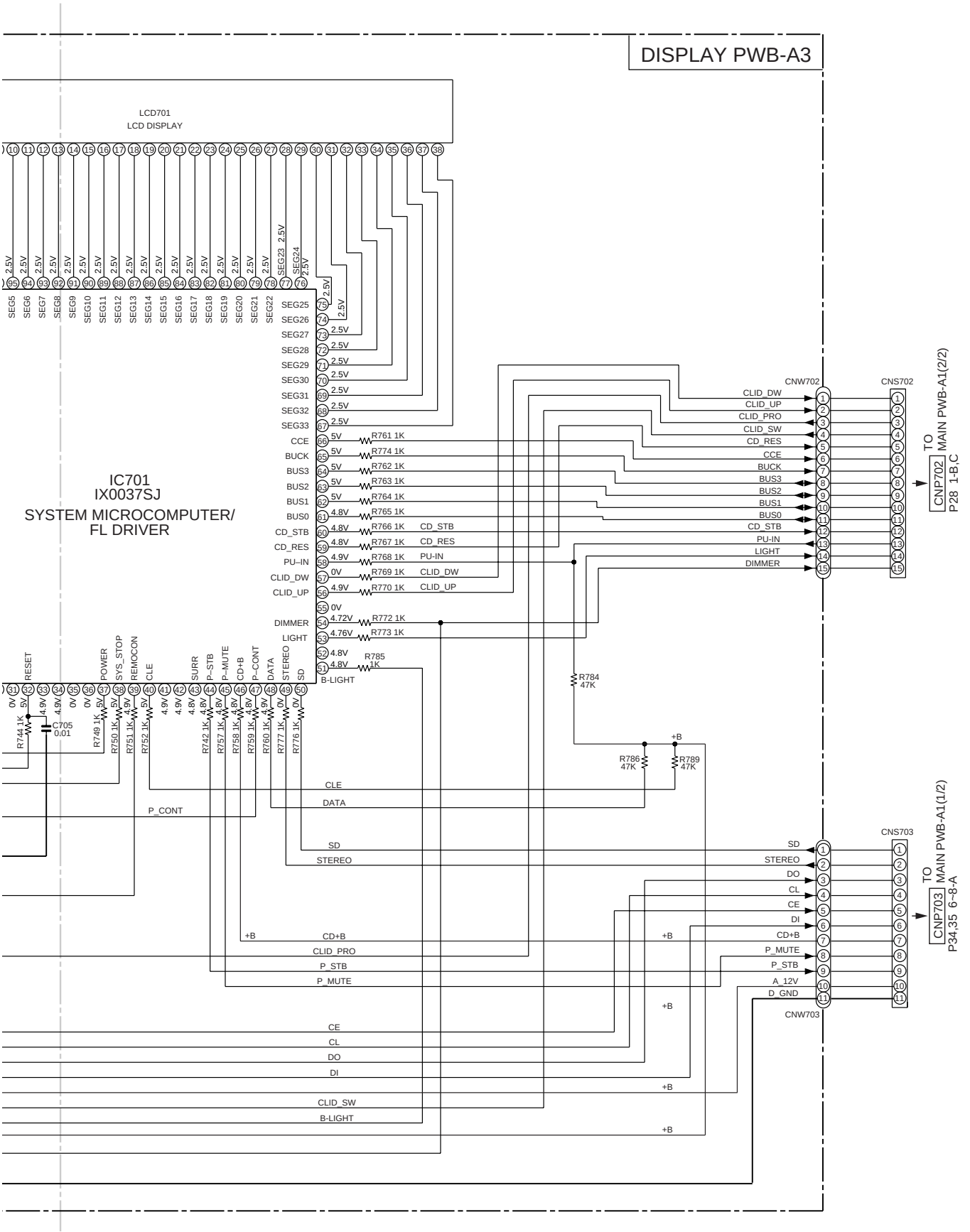



**Figure 30 SCHEMATIC DIAGRAM (5/12)**




| 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|

**Figure 31 SCHEMATIC DIAGRAM (6/12)**

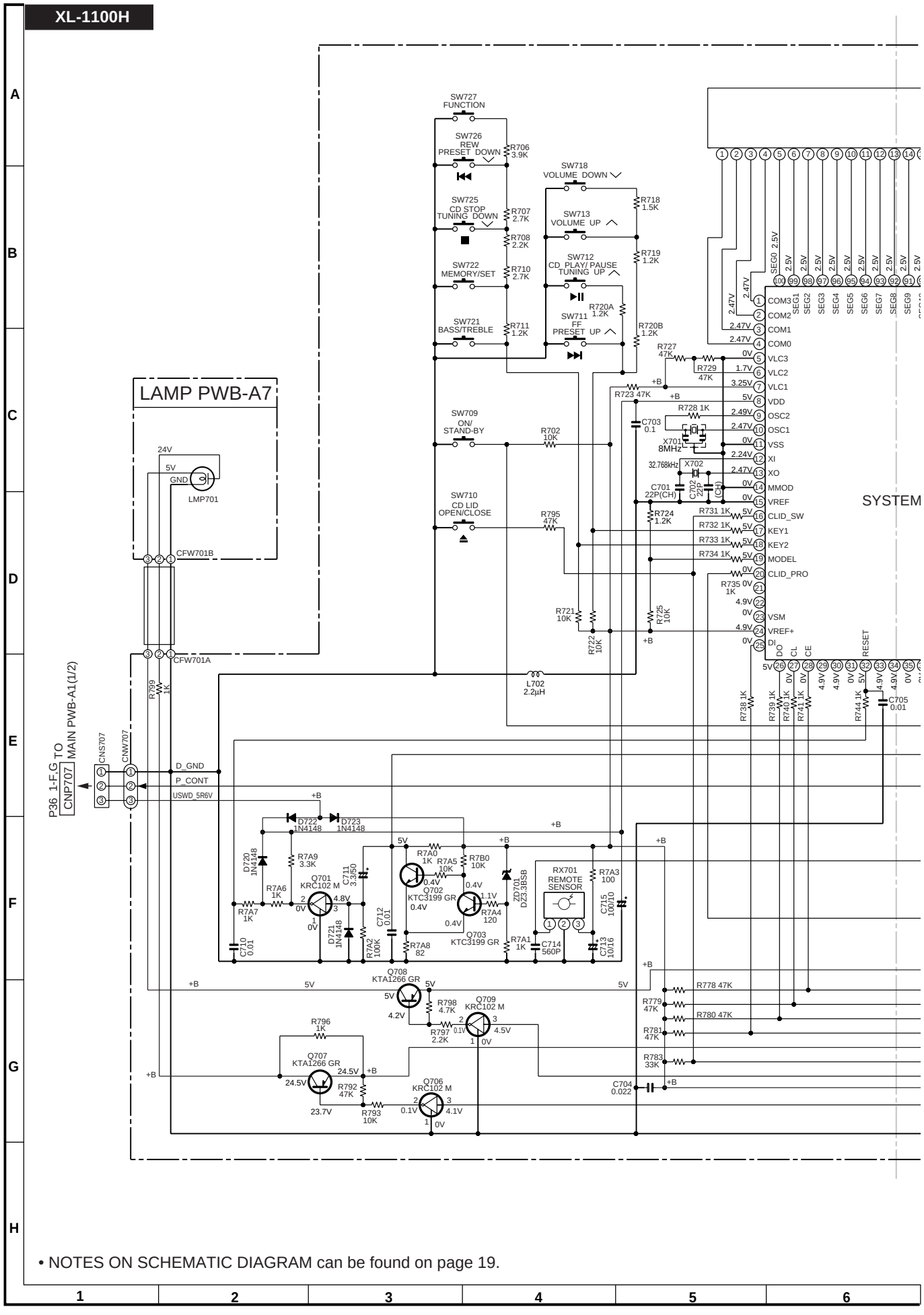
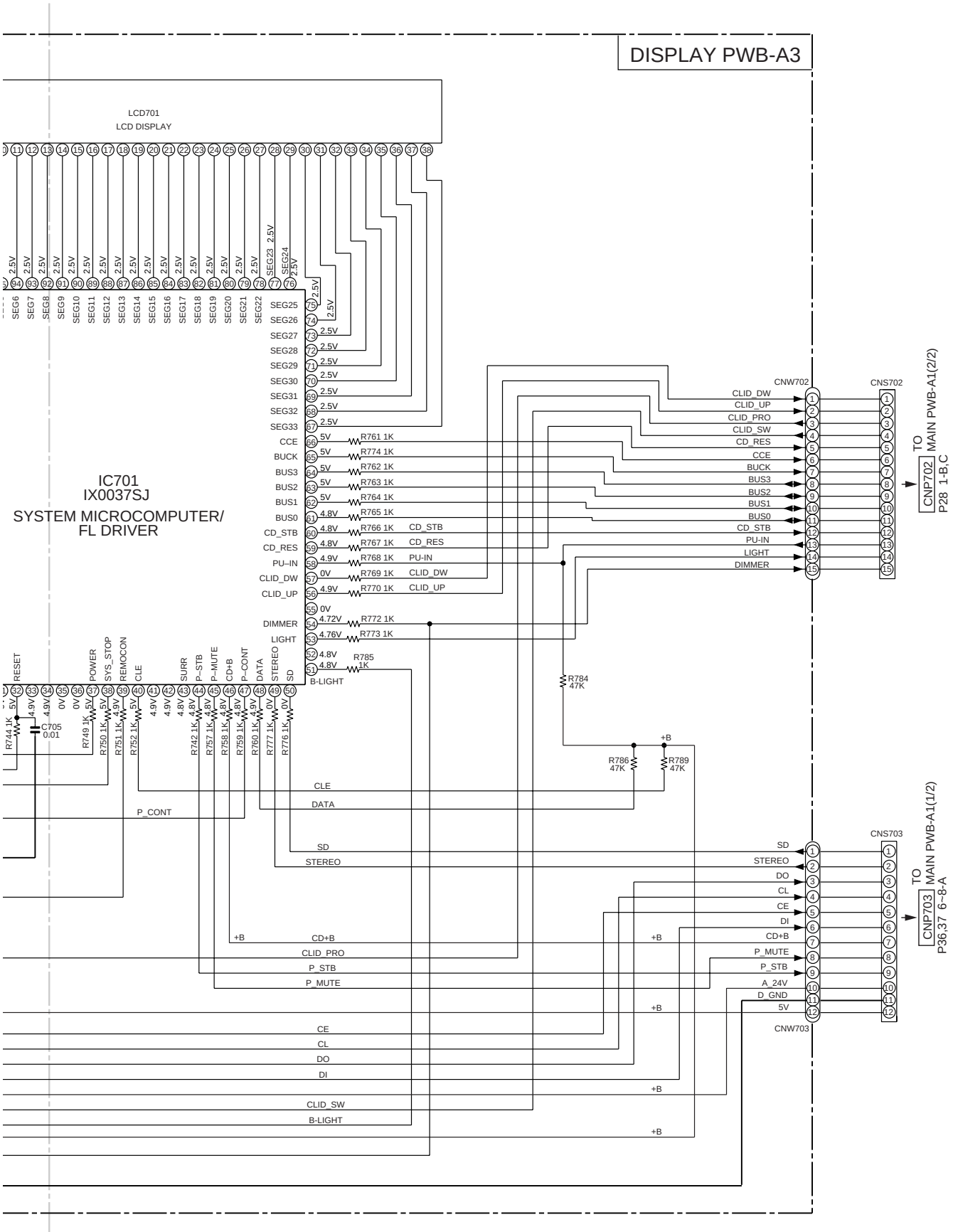
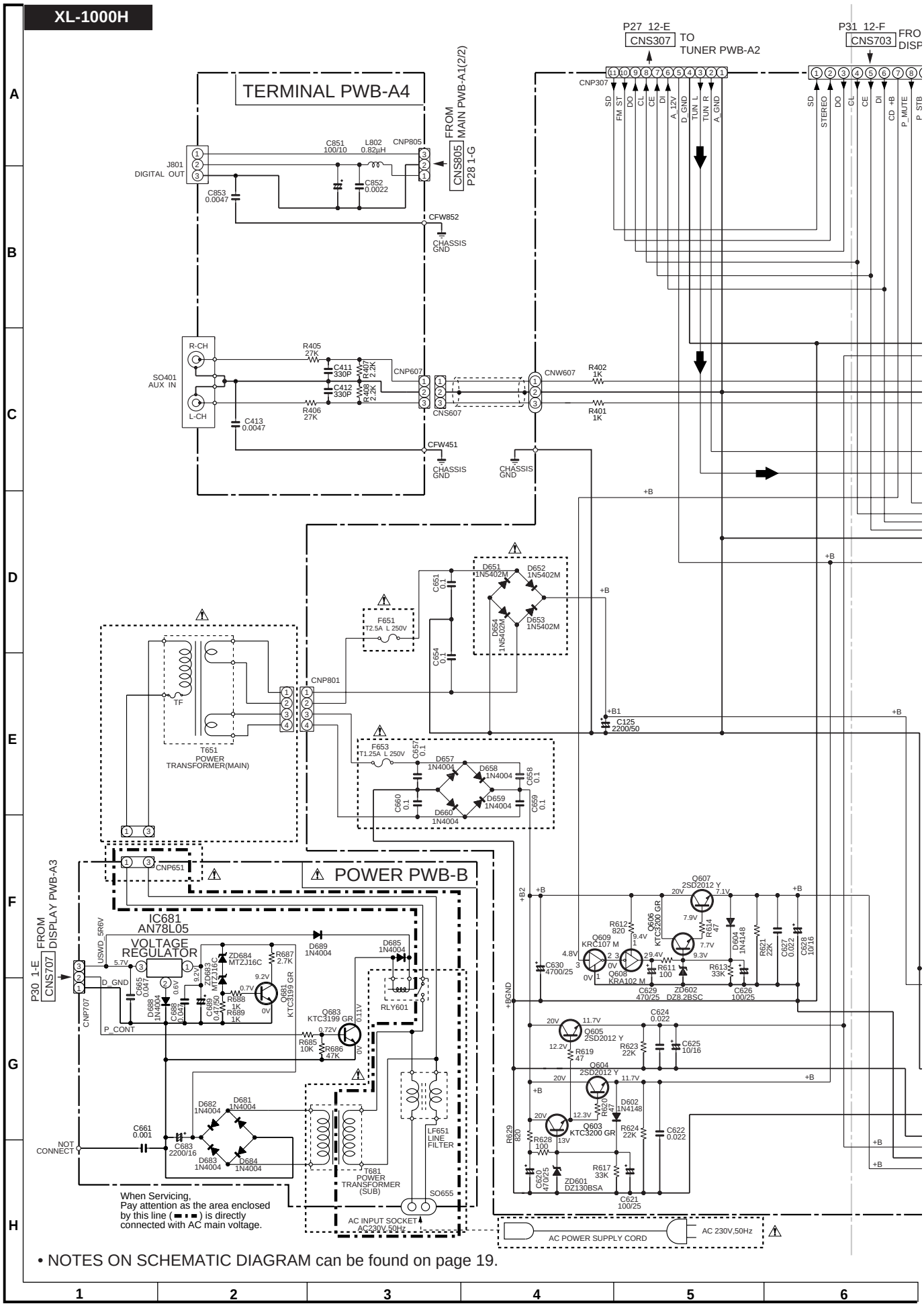



**Figure 32 SCHEMATIC DIAGRAM (7/12)**



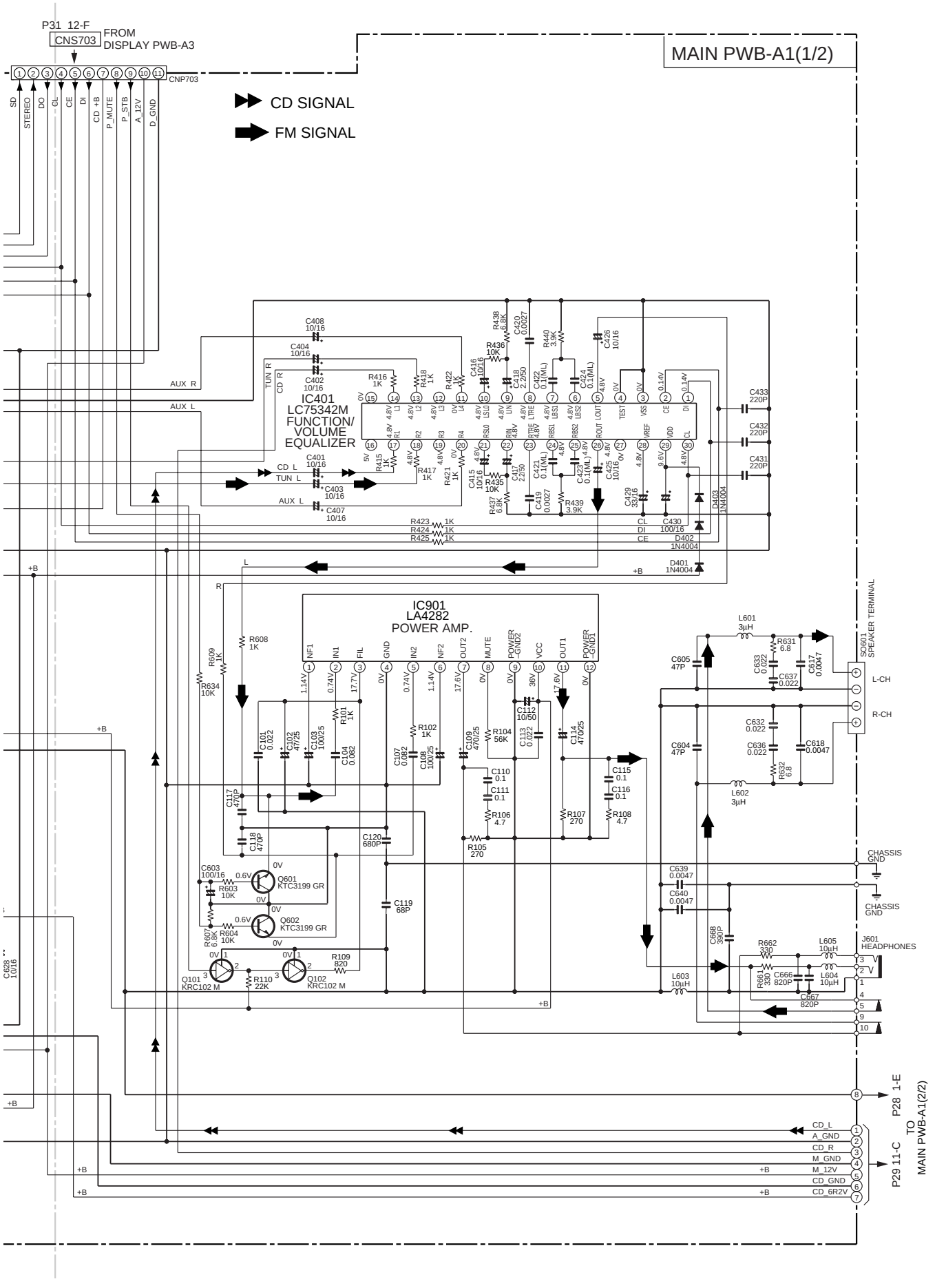

| 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|

**Figure 33 SCHEMATIC DIAGRAM (8/12)**



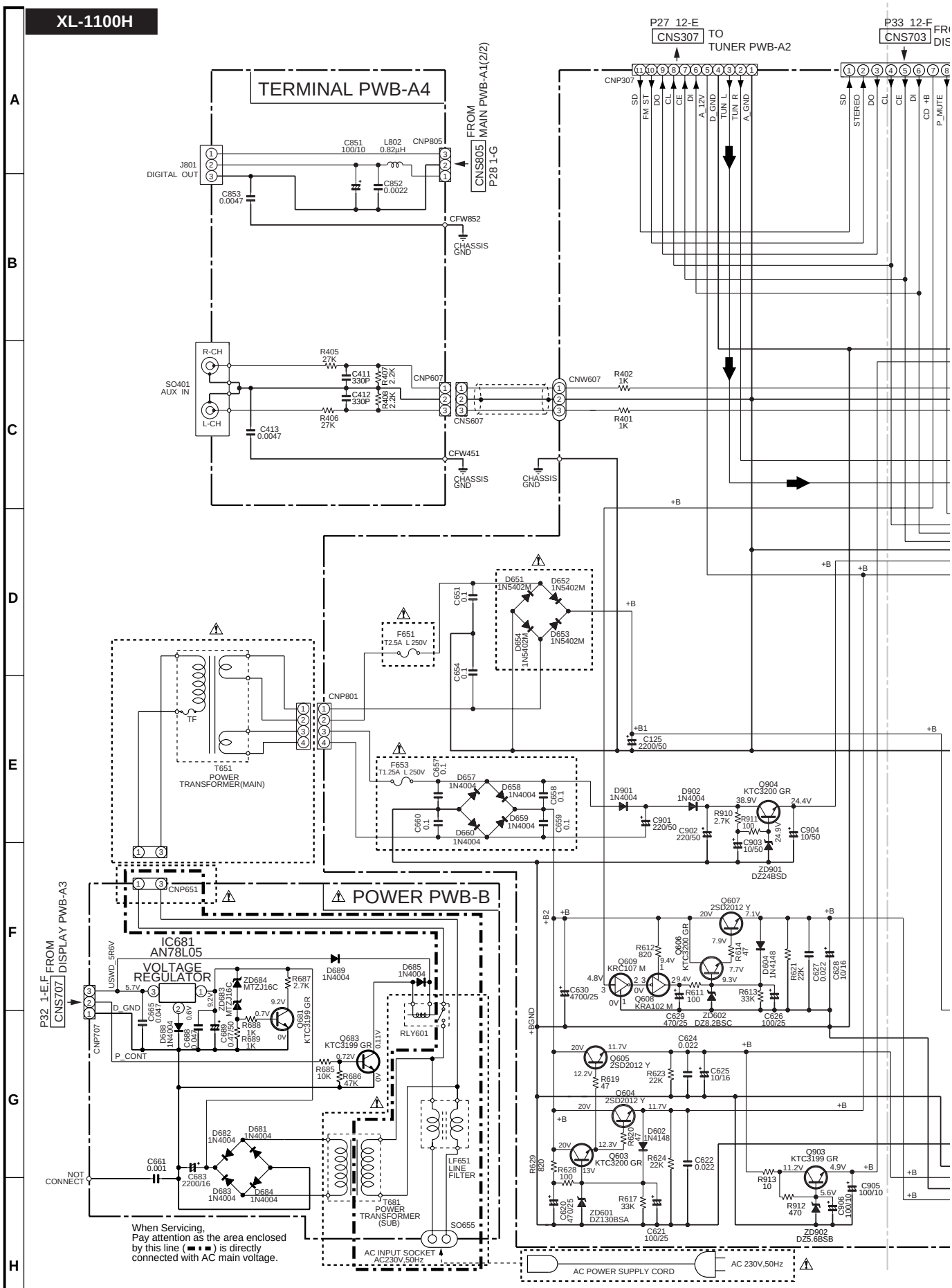

• NOTES ON SCHEMATIC DIAGRAM can be found on page 19.

**Figure 34 SCHEMATIC DIAGRAM (9/12)**



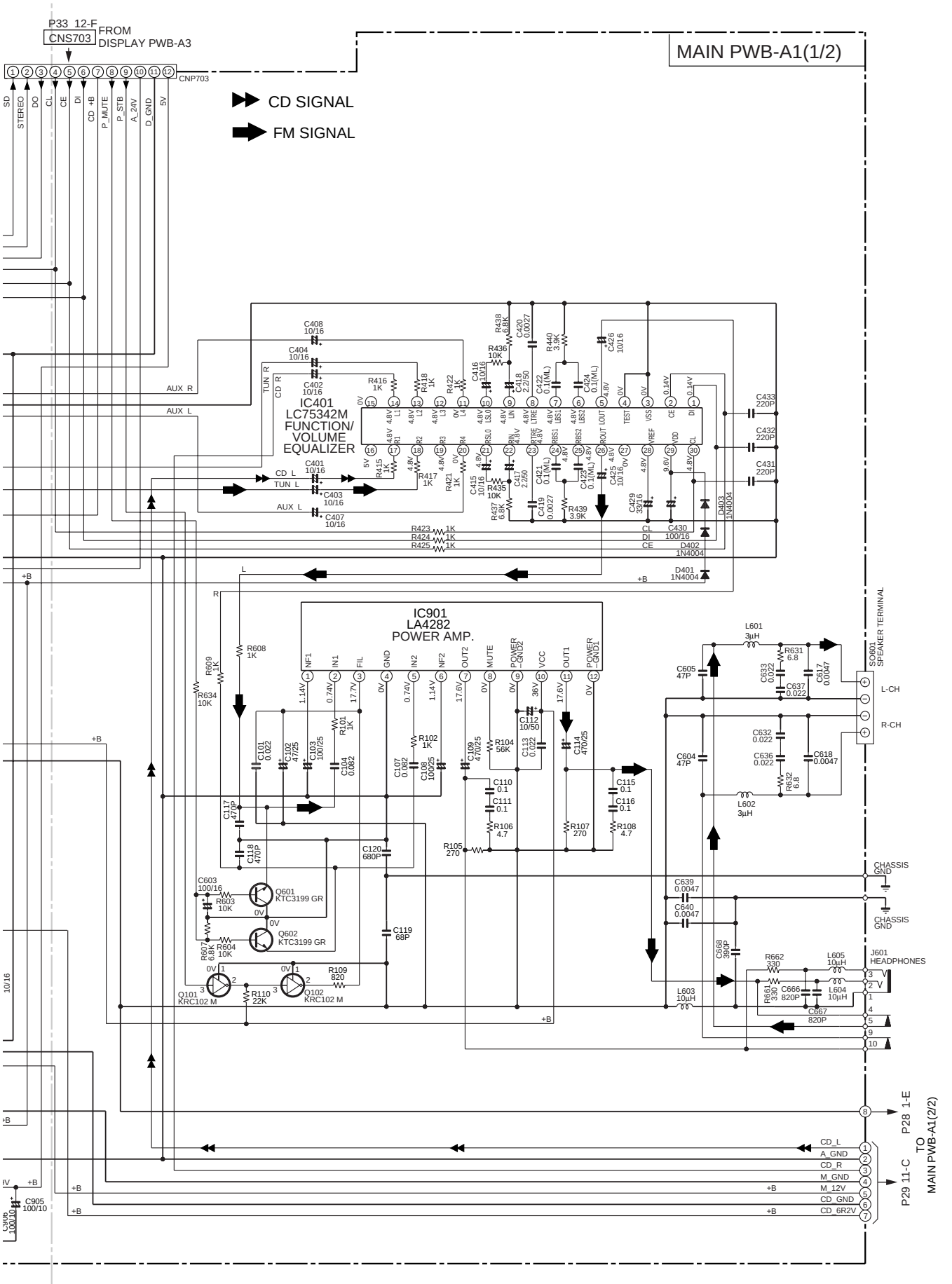

| 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|

**Figure 35 SCHEMATIC DIAGRAM (10/12)**



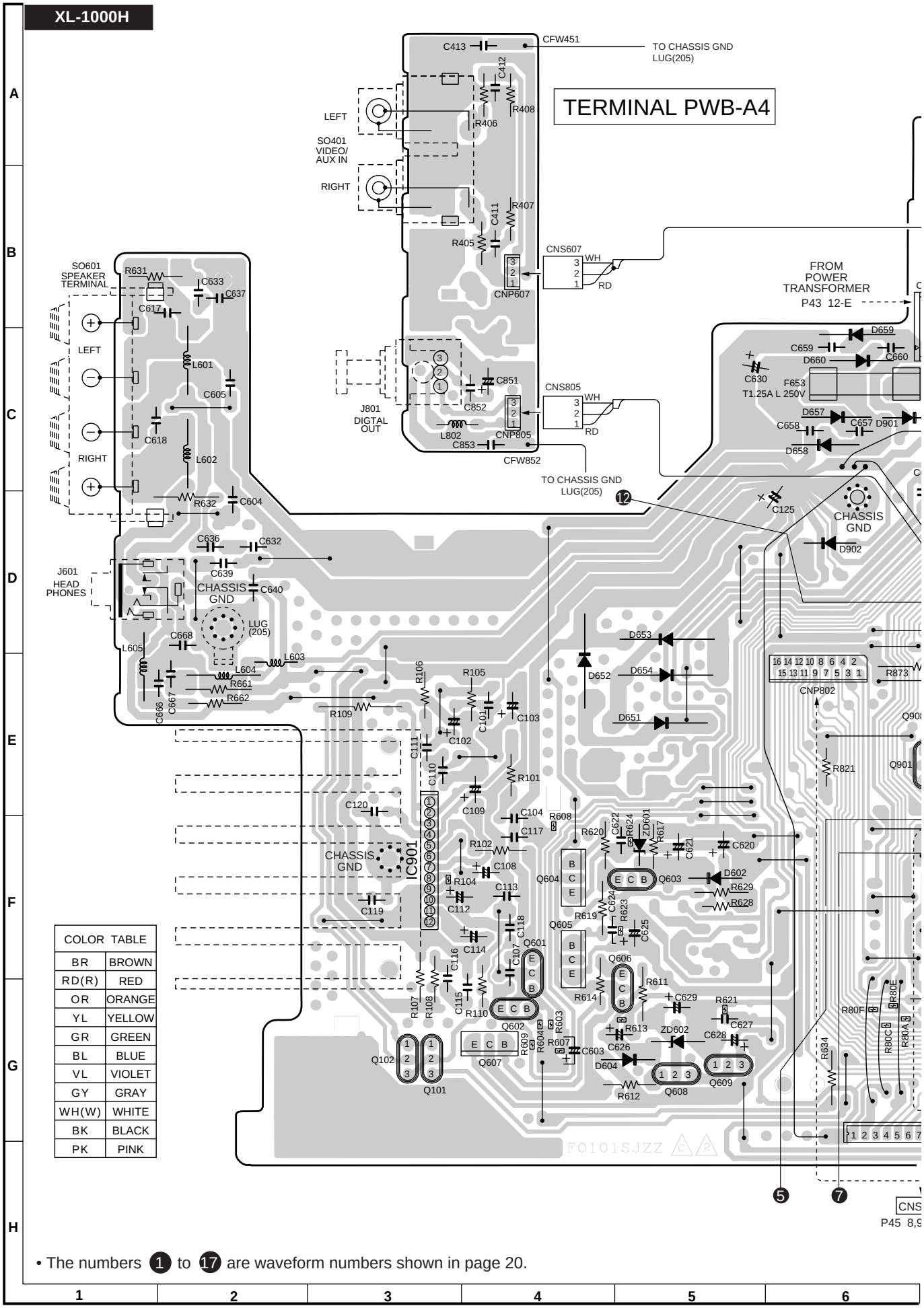

• NOTES ON SCHEMATIC DIAGRAM can be found on page 19.

**Figure 36 SCHEMATIC DIAGRAM (11/12)**



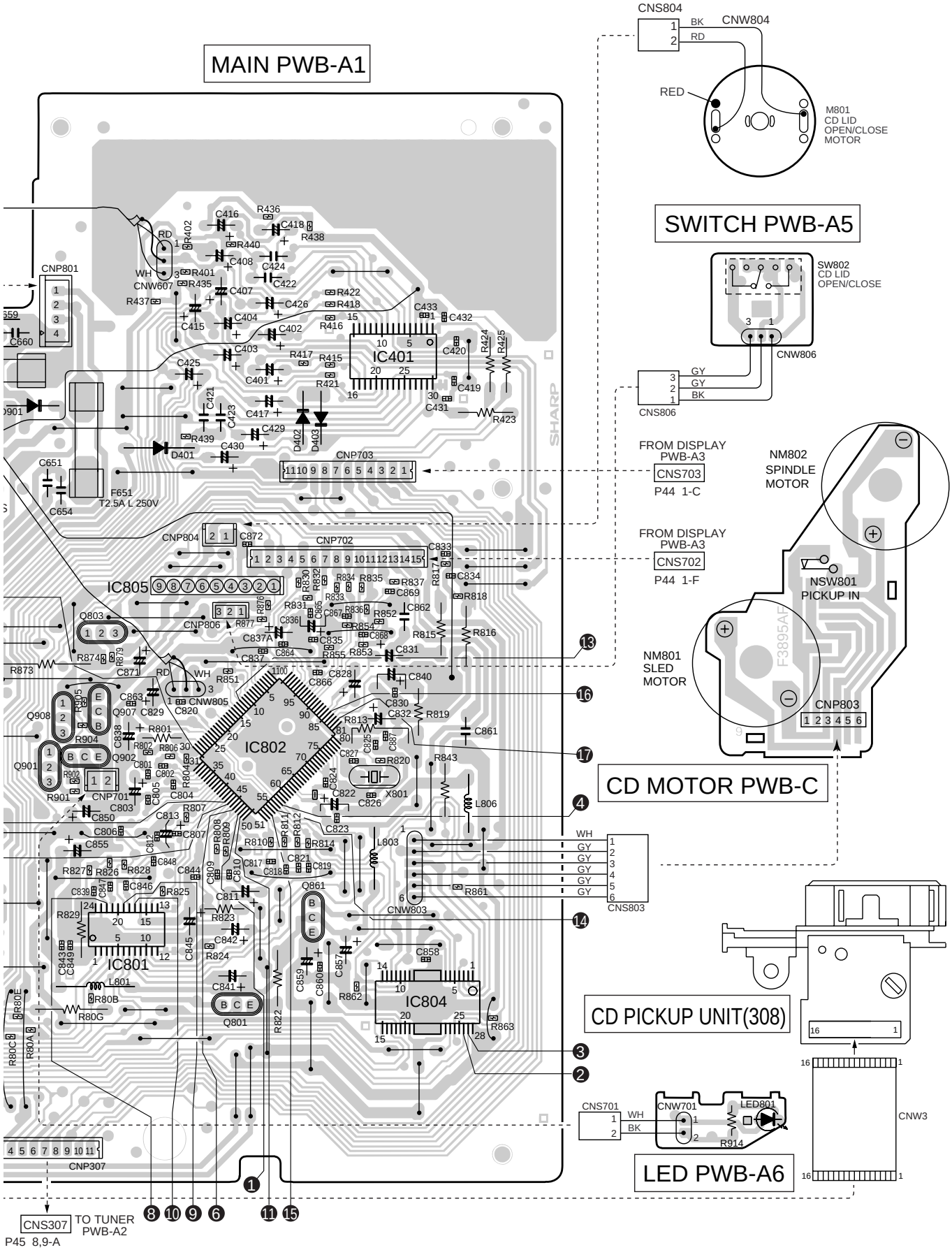

| 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|

**Figure 37 SCHEMATIC DIAGRAM (12/12)**




| COLOR TABLE | |
|---|---|
| BR | BROWN |
| RD(R) | RED |
| OR | ORANGE |
| YL | YELLOW |
| GR | GREEN |
| BL | BLUE |
| VL | VIOLET |
| GY | GRAY |
| WH(W) | WHITE |
| BK | BLACK |
| PK | PINK |

**Figure 38 WIRING SIDE OF P.W.BOARD (1/7)**




| 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|

**Figure 39 WIRING SIDE OF P.W.BOARD (2/7)**

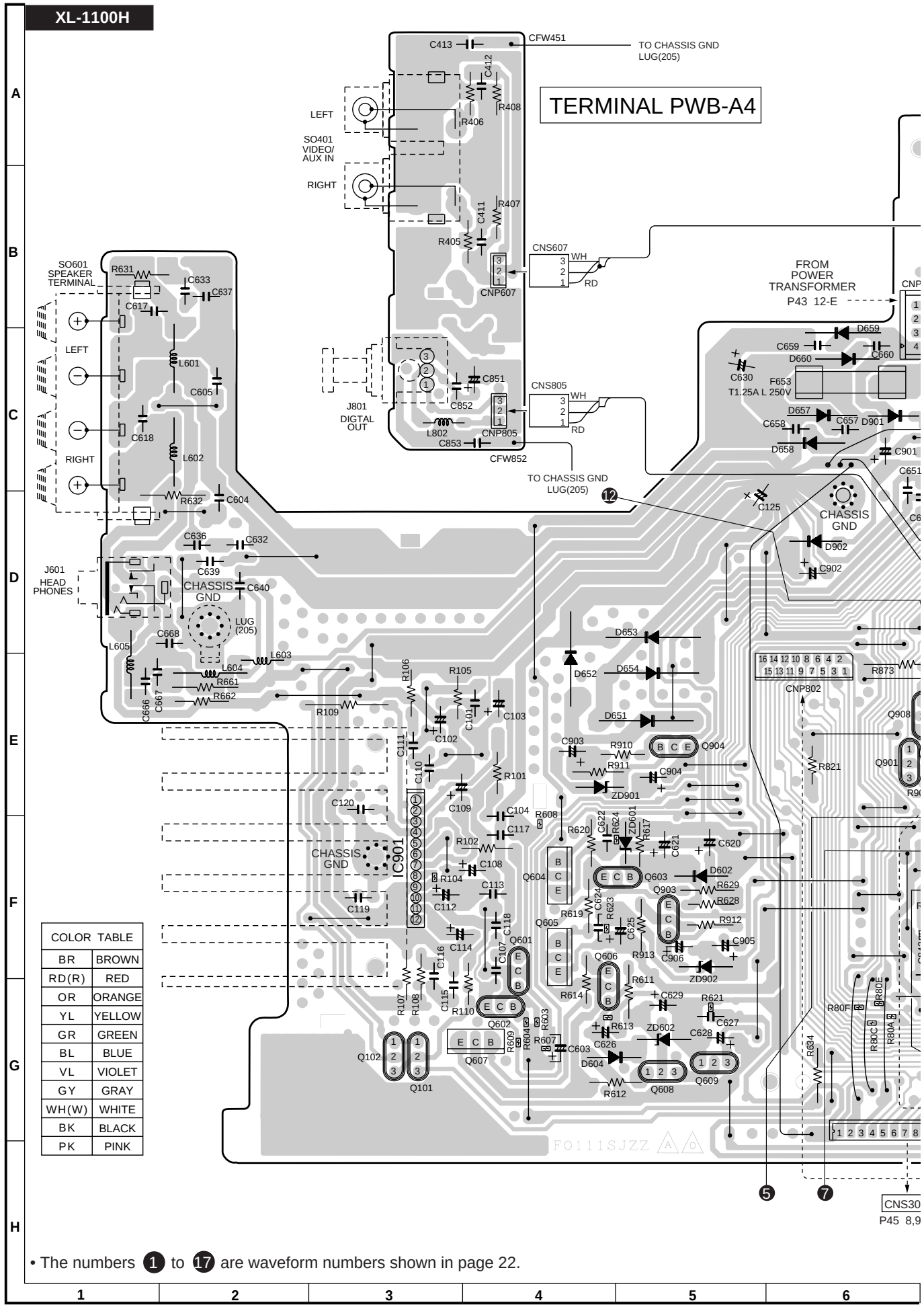
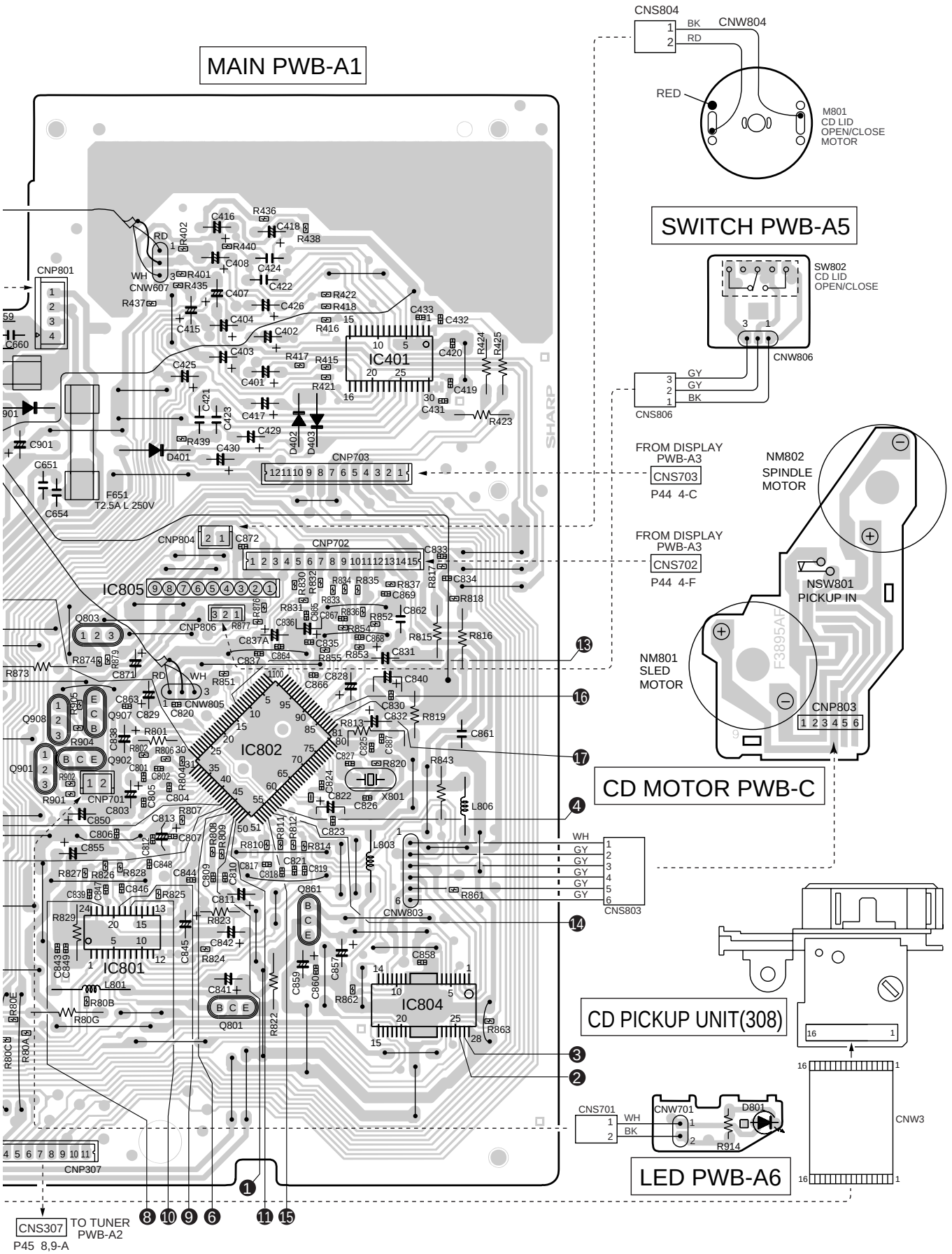



**Figure 40 WIRING SIDE OF P.W.BOARD (3/7)**




| 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|

**Figure 41 WIRING SIDE OF P.W.BOARD (4/7)**

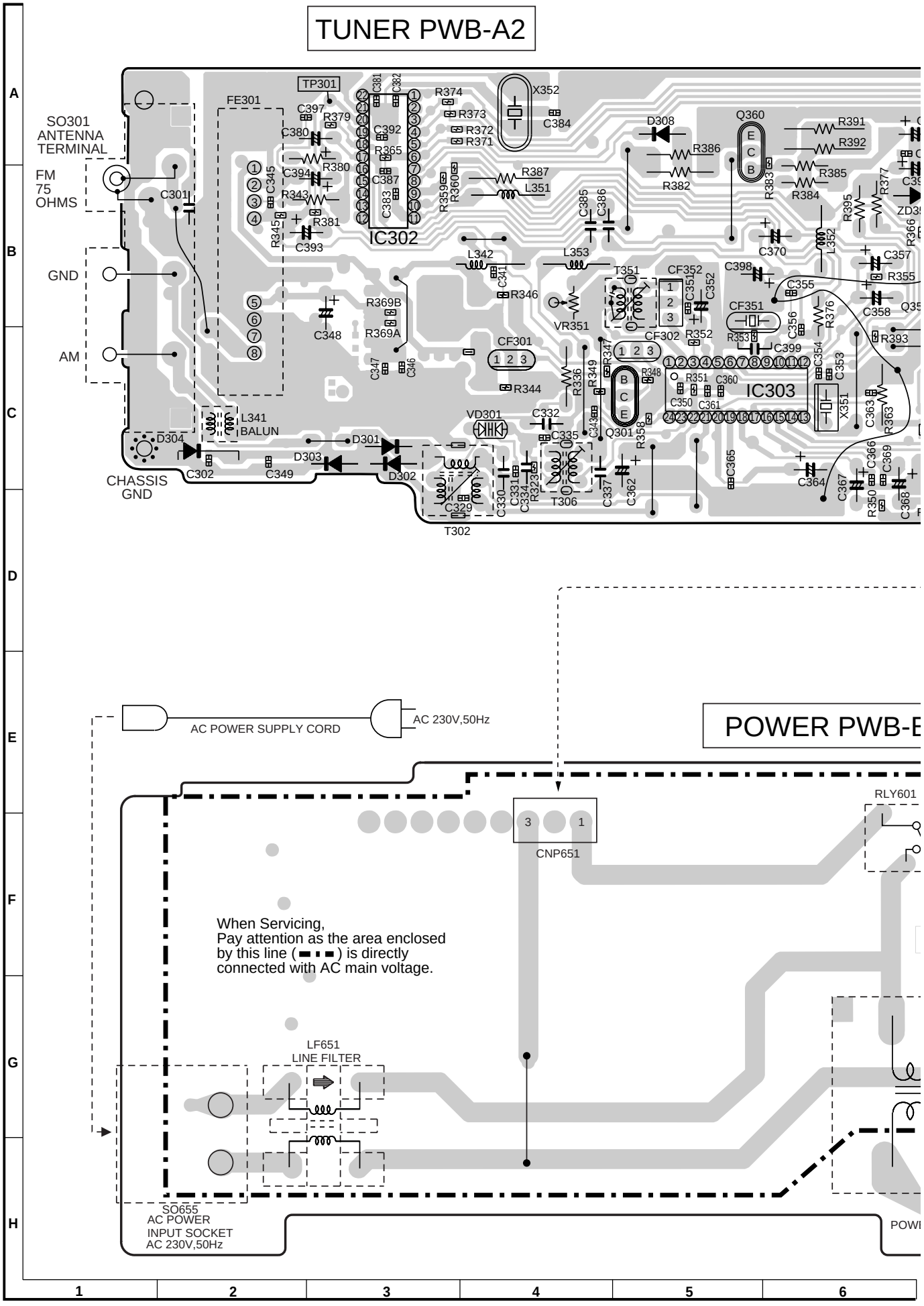
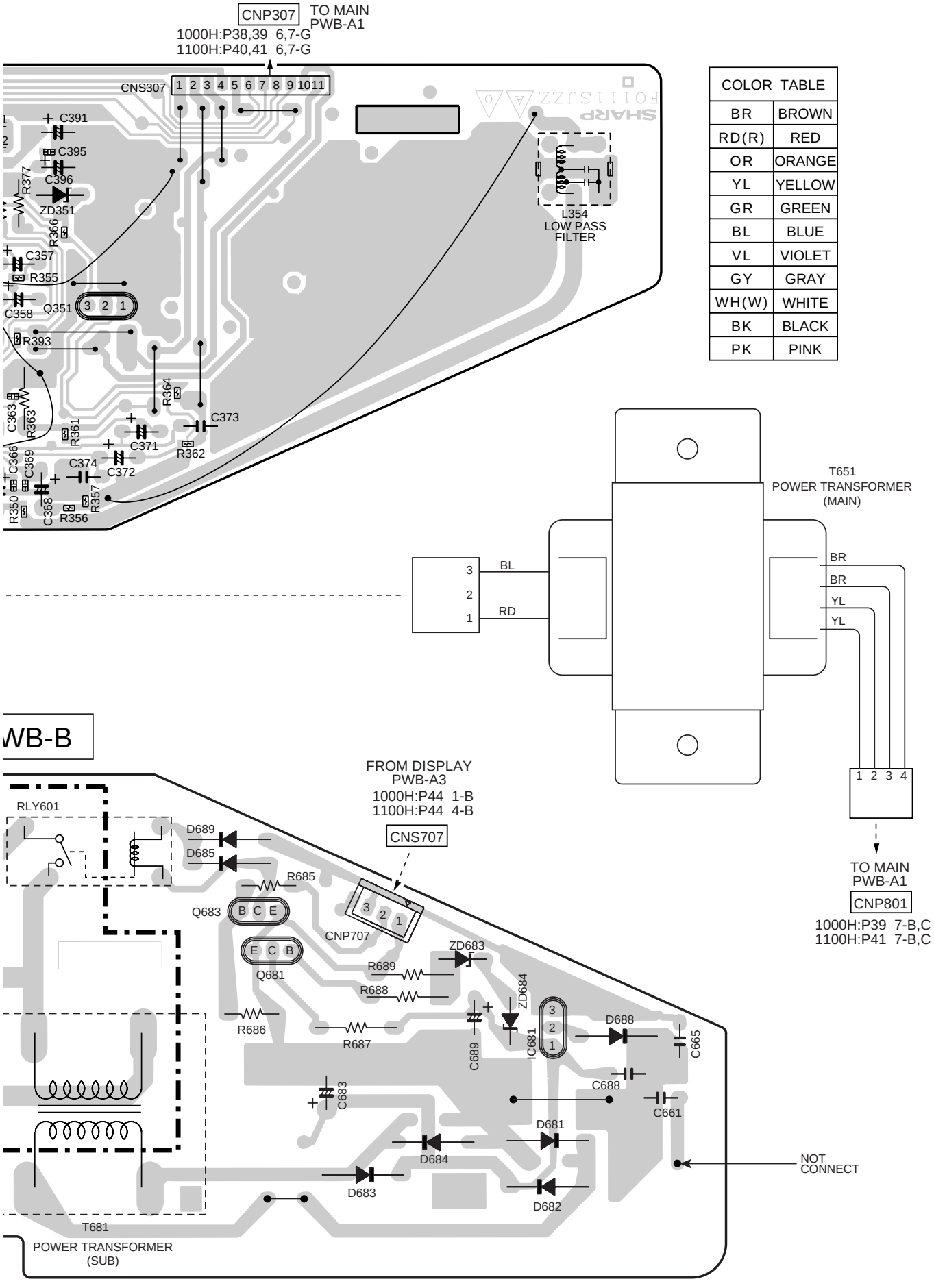



**Figure 42 WIRING SIDE OF P.W.BOARD (5/7)**




| 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|

**Figure 43 WIRING SIDE OF P.W.BOARD (6/7)**

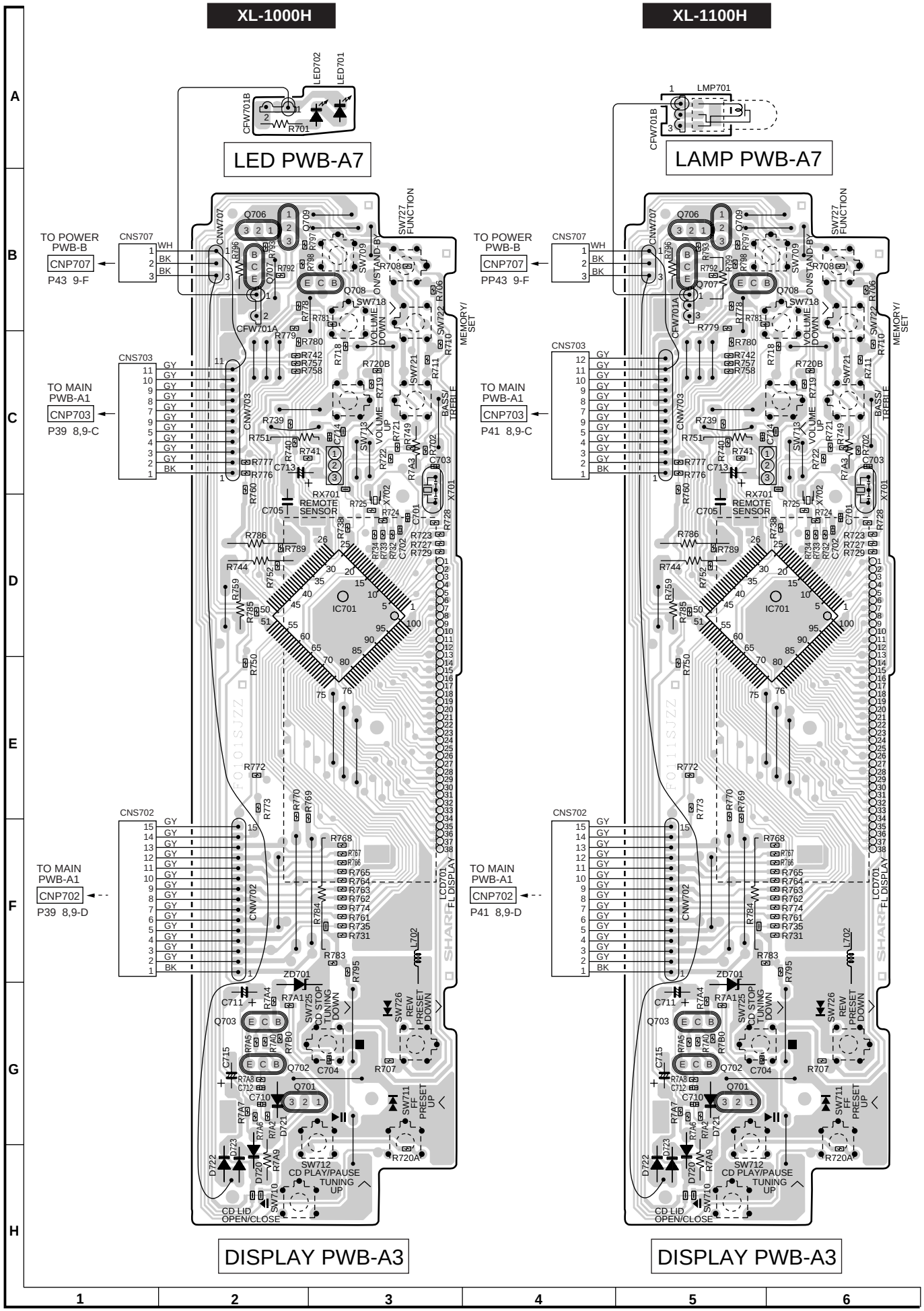



**Figure 44 WIRING SIDE OF P.W.BOARD (7/7)**

# TROUBLESHOOTING

## When the CD does not function

When the CD section does not operate when the objective lens of the optical pickup is dirty, this section may not operate. Clean the objective lens, and check the playback operation. When this section does not operate even after the above step is taken,check the following items.
Remove the cabinet and follow the troubleshooting instructions.
"Track skipping and/or no TOC (Table Of Contents) may be caused by build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

Turn off the power, and wipe the lens softly using a cleaning paper moistened with commercially available cleaning solution so as not to damage it.
Be careful not to touch the lens with bare hands.

Dust gradually accumulates on the objective lens during use, and it may degrade performance.
To avoid this problem, use a cleaning disc designed for CD optical pickup lenses.

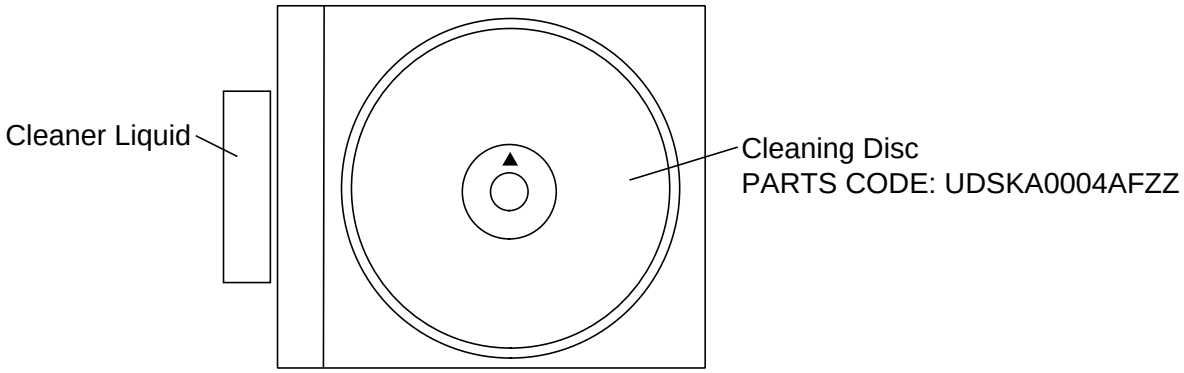
**HOW TO USE**

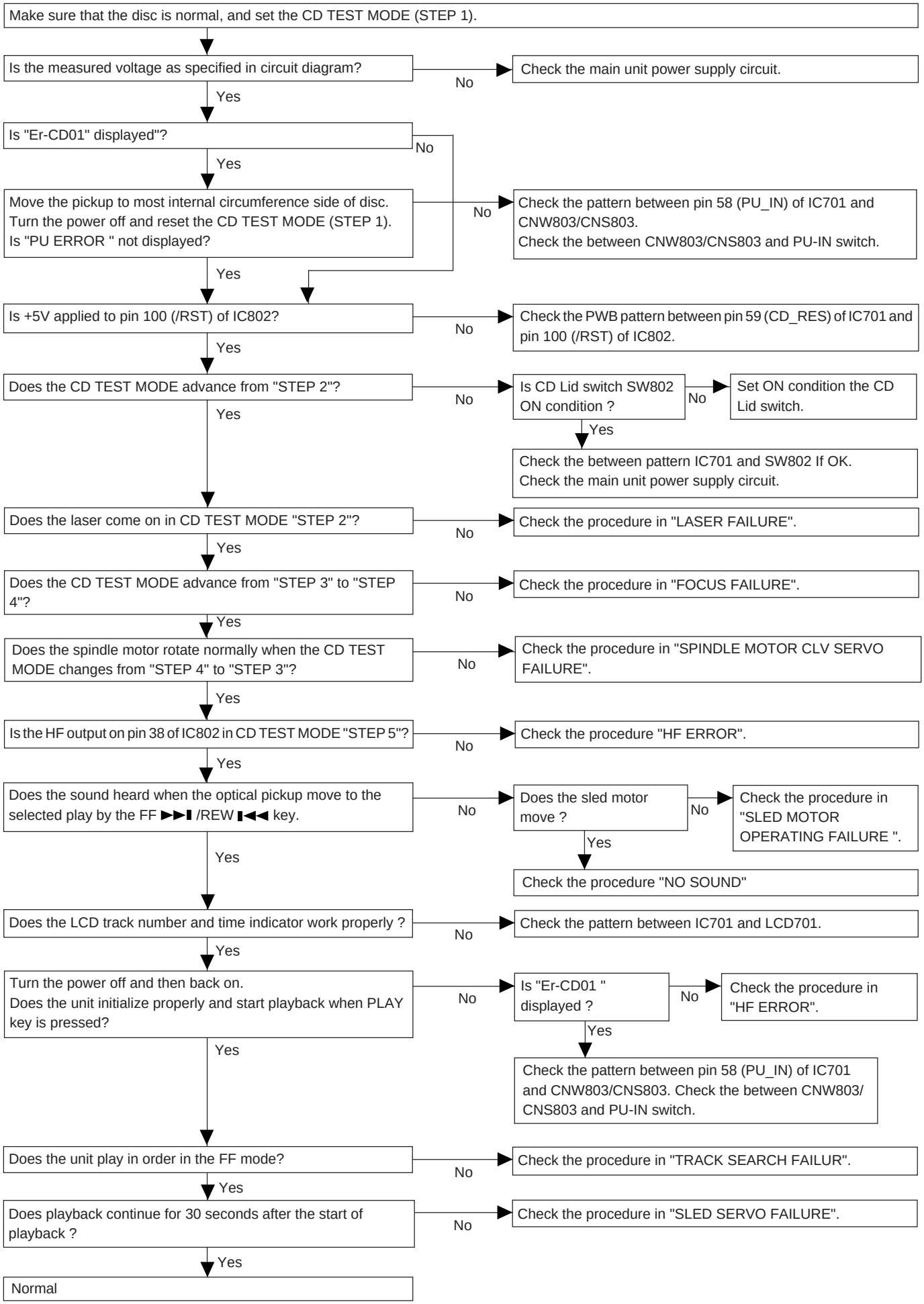
1. Using the brush in the cleaner cap, apply 1 or 2 drops of the cleaning fluid to the brush on the CD cleaner disc which has ▲ the mark next to it.
2. Place the CD cleaner disc onto the CD disc tray with the brush side down, then press the play button.
3. You will hear music for about 20 seconds and the CD player will automatically stop. If it continues to turn, press the stop button.

**CAUTION**

- The CD lens cleaner should be effective for 30 - 50 operations, however if the brushes become worn out earlier then please replace the cleaner disc.
- If the CD cleaner brushes become very wet then wipe off any excess fluid with a soft cloth.
- Do not drink the cleaner fluid or allow it to come in contact with the eyes. In the event of this happening then drink and / or rinse with clean water and seek medical advice.
- The CD cleaner disc must not be used on car CD player or on computer CD ROM drives.

All rights reserved. Unauthorized duplicating, broadcasting and renting product is prohibited by law.




Make sure that the disc is normal, and set the CD TEST MODE (STEP 1).
Is the measured voltage as specified in circuit diagram?
No
Check the main unit power supply circuit.
Yes
Is "Er-CD01" displayed"?
No
Yes
Move the pickup to most internal circumference side of disc.
Turn the power off and reset the CD TEST MODE (STEP 1).
Is "PU ERROR " not displayed?
No
Check the pattern between pin 58 (PU_IN) of IC701 and CNW803/CNS803.
Check the between CNW803/CNS803 and PU-IN switch.
Yes
Is +5V applied to pin 100 (/RST) of IC802?
No
Check the PWB pattern between pin 59 (CD_RES) of IC701 and pin 100 (/RST) of IC802.
Yes
Does the CD TEST MODE advance from "STEP 2"?
No
Is CD Lid switch SW802 ON condition ?
No
Set ON condition the CD Lid switch.
Yes
Check the between pattern IC701 and SW802 If OK.
Check the main unit power supply circuit.
Yes
Does the laser come on in CD TEST MODE "STEP 2"?
No
Check the procedure in "LASER FAILURE".
Yes
Does the CD TEST MODE advance from "STEP 3" to "STEP 4"?
No
Check the procedure in "FOCUS FAILURE".
Yes
Does the spindle motor rotate normally when the CD TEST MODE changes from "STEP 4" to "STEP 3"?
No
Check the procedure in "SPINDLE MOTOR CLV SERVO FAILURE".
Yes
Is the HF output on pin 38 of IC802 in CD TEST MODE "STEP 5"?
No
Check the procedure "HF ERROR".
Yes
Does the sound heard when the optical pickup move to the selected play by the FF ▶▶▮ /REW ▮◀◀ key.
No
Does the sled motor move ?
No
Check the procedure in "SLED MOTOR OPERATING FAILURE ".
Yes
Check the procedure "NO SOUND"
Yes
Does the LCD track number and time indicator work properly ?
No
Check the pattern between IC701 and LCD701.
Yes
Turn the power off and then back on.
Does the unit initialize properly and start playback when PLAY key is pressed?
No
Is "Er-CD01 " displayed ?
No
Check the procedure in "HF ERROR".
Yes
Check the pattern between pin 58 (PU_IN) of IC701 and CNW803/CNS803. Check the between CNW803/CNS803 and PU-IN switch.
Yes
Does the unit play in order in the FF mode?
No
Check the procedure in "TRACK SEARCH FAILUR".
Yes
Does playback continue for 30 seconds after the start of playback ?
No
Check the procedure in "SLED SERVO FAILURE".
Yes
Normal

## • Laser failure.

Is +6.2V applied to the emiter of Q861 ?
- No → Check the PWB pattern between emiter of Q607 and emiter of Q861.
- Yes ↓

Is +5V applied to the collector of Q861 ?
- No → Check the peripheral parts of IC804 and Q861.
- Yes ↓

Is +5V applied to the pin 62 (VDD) of IC802 ?
- No → Check the PWB pattern between collector of Q861 and pin 62 of IC802.
- Yes ↓

Is +5V applied to the pin 1 (VCC) of IC801 ?
- No → Check the PWB pattern between collector of Q861 and pin 1 of IC801.
- Yes ↓

Is 0V applied to the pin 57 (SEL) of IC802 ?
- No → Does the laser come on when pattern cut between pin 8 (SEL) of IC801 and pin 57 (SEL) of IC802 ?
  - Yes → Check the PWB pattern between IC701 and IC802 (BUCK/CCE/BUS0~3)
  - No ↓
- Yes ↓

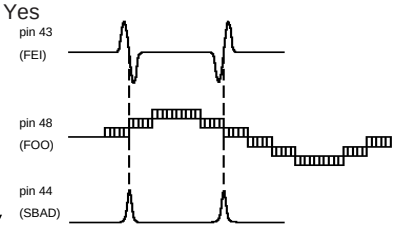
Is approx. 2V applied to the collector of Q801.
- No → Check the peripheral parts of IC801 and Q801. If it is normal, the optical pickup is faulty.
- Yes ↓

Check CNP802/CNW3. If it is normal, the optical pickup is faulty.

## • Focus failure.

Does the optical pickup move up and down when the disc is removed?
- No → Check as stated in item "FOCUS SERVO SAWTOOTH WAVE FAILURE".
- Yes ↓

Is the following waveform ouput at the pin 43 (FEI) of IC802 when the disc is set?
- No → Check the periphery of IC801 and CNP802/CNW3. Is it normal?
  - Yes → The optical pickup is faulty.
- Yes ↓



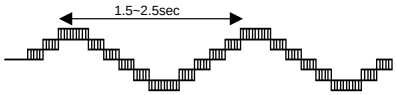

Is the waveform shown above input at the pin 44 (SBAD) of IC802?
- No → Check the pattern between pin 13 of IC801 and pin 44 of IC802. Check the periphery of IC801 and CNP802/CNW3.
- Yes ↓

IC801 is faulty.

## • Focus servo sawtooth wave failure.

Is sawtooh wave output to the pin 48 (FOO) of IC802 ?
No → IC802 is faulty.

Yes

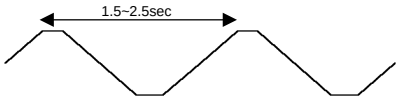



Is +6.2V applied to the pins 21 and 22 (VCC) of IC804 ?
No → Check the PWB pattern between pin emiter of Q607 and IC804.

Yes

Is sawtooth wave obtained between pins 26 and 27 of IC804 ?
No → Is +5V applied to the pin 7 (MUTE) of IC804 ?
No → Check the PWB pattern between pin 7 of IC804 and pin 60 (CD STB) of IC701.
Yes → Check the PWB pattern between pin 48 (FOO) of IC802 and pins 24 and 25 of IC804. If OK. IC804 is faulty.

Yes




Is sawtooth wave obtained between pins 13 and 16 of CNP802/CNW3 ? (as shown above)
No → Check the PWB pattern between CNP802/CNW3 and IC804.

Yes

CNP802/CNW3 connection failure or optical pickup failure.

## • Spindle motor clv servo failure.

Is following wave output to the pin 55 (DMO) of IC802 when the CD TEST MODE "STEP 3" is changed to " STEP 4" ?
No → Check the procedure in "HF ERROR". If OK. IC802 is faulty.

Yes

Is above wave obtained between pins 11 and 12 of IC804 ?
No → Check the PWB pattern between pin 55 (DMO) of IC802 and pins 9 and 10 of IC804. If OK. IC804 is faulty.

Yes

Is above wave obtained between pins 9 and 12 of CNP802/CNW3 ?
No → Check the PWB pattern between CNP802/CNW3 and IC804.

Yes

CNP802/CNW3 connection failure or optical pickup failure.

**• HF error.**

Is output (tracking error signal) obtained at the pins 46 (TEI) and 47 (TEZI) of IC802 the CD TEST MODE "STEP 4" is changed to "STEP 5"?

No → Is output obtained at the pins 3 and 8 of CNP802/CNW3.

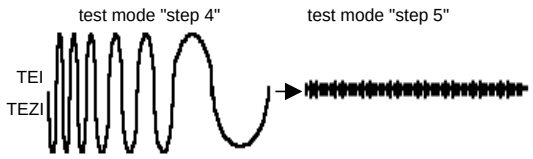
No → Optical pickup failure.

Yes → Check the periphery of IC801. Check the PWB pattern between pin 12 (TEO) of IC801 and pins 46 and 47 of IC802. Is it normal ?

No → IC801 is faulty.

Yes → Check the PWB pattern between pin 49 (TRO) of IC802 and pin 19 of IC804. Check the periphery of IC804 and CNP802/CNW3. If OK. Optical pickup failure.

Yes



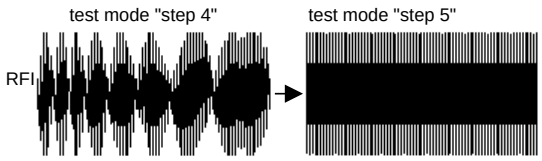

Is output (HF signal) obtained at the pin 38 (RFI) of IC802 when the CD TEST MODE "STEP 4" is changed to "STEP 5"?

No → Is output obtained at the pins 4 and 5,6 of CNP802/CNW3.

No → Optical pickup failure.

Yes → Check the periphery of IC801. Check the PWB pattern between pin 19 (RFGO) of IC801 and pins 38 (RFI) of IC802. If OK. IC801 is faulty

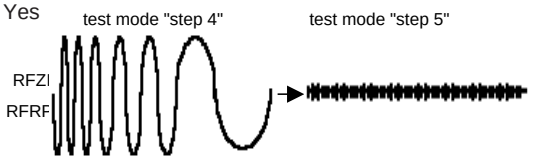
Yes




Is output (HF signal) obtained at the pins 41 (RFZI) and 42 (RFRP) of IC802 when the CD TEST MODE "STEP 4" is changed to "STEP 5"?

No → Check the periphery of IC801. Check the PWB pattern between pin17 (RFRP) of IC801 and pins 41 (RFZI) and 42 (RFRP) of IC802. If OK. IC801 is faulty.

Yes




Is the following wave output to the pin 55 (DMO) of IC802 when the CD TEST MODE "STEP 4" or "STEP 5"?

No → Check the periphery pins 28~32 of IC802. If OK. IC802 failure.

Yes

Normal.

**• No sound.**

No sound from both L and R-ch?

No → Check the interval between the pins 82 or 85 of IC802 and the pins 2 or 5 of IC901.

Yes → Is +4.5V applied to pin 83 (DVDD) of IC802?

No → Check the PWB pattern between R819 and Q861.

Yes → Is signal of pins 82 and 85 of IC802 output?

No → Check the peripheral parts of IC802. If OK, IC802 is faulty.

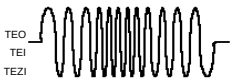
Yes → The main PWB is faulty.

## • Track search failure

Does the sled motor run in FF/REW state when the SERVO TEST MODE "STEP1" is set?
- No → Check as stated in item "SLED MOTOR OPERATION FAILURE".
- Yes ↓

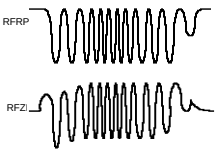
Is the following wave output to the pin 49 (TRO) of IC802 during track search in normal playback?
- No → IC802 failure.
- Yes ↓

Is the following wave output to the pins 12 (TEO) of IC801 during track search in normal playback?
- No → Check the PWB pattern between pin 49 (TRO) of IC802 and pin 19 of IC804.
  Check the PWB pattern between pins 17 and 18 of IC804 and Optical pickup.
  If OK. Optical pickup failure.
- Yes ↓




Is the above wave output to the pins 46 (TEI) and 47 (TEZI) of IC802 during track serch in normal playback?
- No → Check the PWB pattern between pin 12 (TEO) of IC801 and pins 46 and 47 of IC802. If OK. IC801 failure.
- Yes ↓

Is the following wave output to the pin 41 (RFZI) and 42 (RFRP) of IC802 during track search in normal playback?
- No → Check the PWB pattern between pin 17 (RFO) and 18 (RFIS), 19 (RFRP) of IC801 and pins 41 and 42 of IC802. If OK. IC801 failure.
- Yes ↓

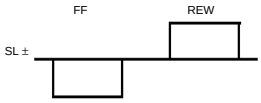



Normal.

## • Sled motor operation failure.

Is following sled feed signal output the pin 53 (FMO) of IC802 when FF ▶▶▮ /REW ▮◀◀ key is pressed after the CD TEST MODE "STEP 1" is seted?
- No → C801 is faulty.
- Yes ↓

Is following sled feed signal output the pins 3 and 4 of IC804 when FF ▶▶▮ /REW ▮◀◀ key is pressed after the CD TEST MODE "STEP 1" is seted?
- No → Check the PWB pattern between pin 53 of IC802 and pins 3 and 4 of IC804.
- Yes ↓




Is sled feed signal output the pins 1 and 2 of IC804?
- No → Check the peripheral parts of IC804. If OK, IC804 is faulty.
- Yes ↓

Is sled feed voltage applied between both terminals of sled motor?
- No → Check the CNW803/CNS803.
- Yes ↓

Check the CD mechanism (periphery of sled motor).
If the sled motor does not run when DC2.0V is applied to both terminals of sled motor, the sled motor is faulty.

## • Sled servo failure.

Is following sled signal output the pin 53 (FMO) of IC802 during playback?
- No → IC802 is faulty.
- Yes ↓

Normal.

# FUNCTION TABLE OF IC

## IC401 VHiLC75342M-1: Function/Volume Equalizer (LC75342M)

| Pin No. | Port Name | Function |
|---|---|---|
| 1 | DI | Serial data and clock input pin for control. |
| 2 | CE | Chip enable pin. Data written into an internal latch in a timing of [H] -> [L]. Each analog switch is activated. Data transfer enabled at [H] level. |
| 3 | VSS | Ground pin. |
| 4 | TEST | Electronic volume control pin. To be set to the VSS potential. |
| 5 | LOUT | Volume + equalizer output pin. |
| 6 | LBASS2 | Bass-band filter comprising capacitor and resistor connection pin. |
| 7 | LBASS1 | Bass-band filter comprising capacitor and resistor connection pin. |
| 8 | LTRE | Capacitor connection pin comprising treble band filter. |
| 9 | LIN | Volume + equalizer input pin. |
| 10 | LSEL0 | Input selector output pin. |
| 11 | L4 | Input signal pin. |
| 12* | L3 | Input signal pin. |
| 13 | L2 | Input signal pin. |
| 14 | L1 | Input signal pin. |
| 15* | NC | No CONNECT pin. To be open or connected to VSS. |
| 16* | NC | No CONNECT pin. To be open or connected to VSS. |
| 17 | R1 | Input signal pin. |
| 18 | R2 | Input signal pin. |
| 19* | R3 | Input signal pin. |
| 20 | R4 | Input signal pin. |
| 21 | RSEL0 | Input selector output pin. |
| 22 | RIN | Volume + equalizer input pin. |
| 23 | RTRE | Capacitor connection pin comprising treble band filter. |
| 24 | RBASS1 | Bass-band filter comprising capacitor and resistor connection pin. |
| 25 | RBASS2 | Bass-band filter comprising capacitor and resistor connection pin. |
| 26 | ROUT | Volume + equalizer output pin. |
| 27* | NC | No CONNECT pin. To be open or connected to VSS. |
| 28 | Vref | 0.5 x VDD voltage generation block for analog ground. Capacitor of several 10μF to be connected between Vref and AWSS (VSS) as a counter measure against power ripple. |
| 29 | VDD | Supply pin. |
| 30 | CL | Serial data and clock input pin for control. |

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

## IC401 VHiLC75342M-1: Function/Volume Equalizer (LC75342M)

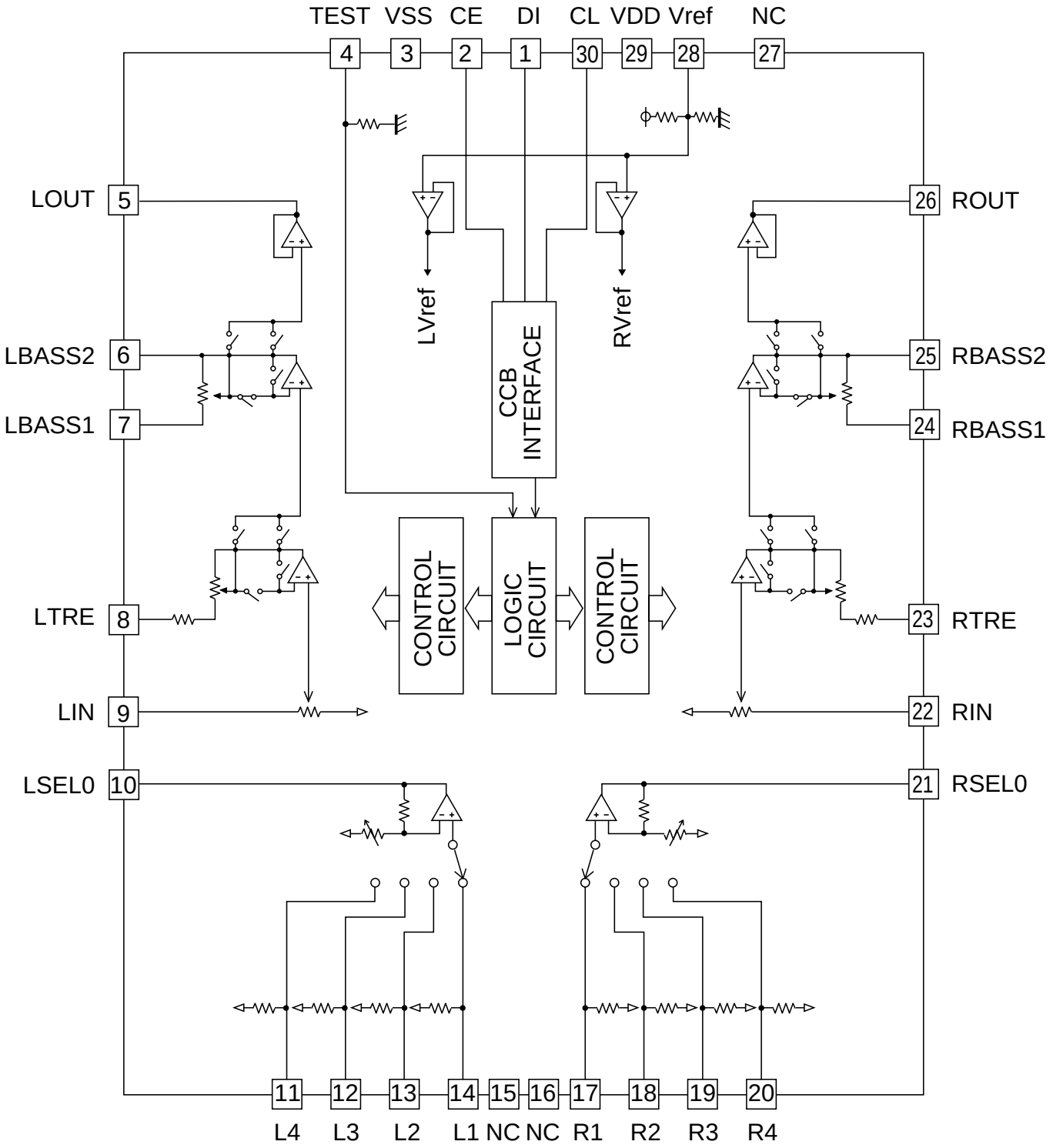



**Figure 52 BLOCK DIAGRAM OF IC**

## IC701 RH-iX0037SJZZ: System Microcomputer/FL driver (IX0037SJ) (1/2)

| Pin No. | Terminal Name | Input/Output | Function |
|---|---|---|---|
| 1-4 | COM3-COM0 | Output | LCD common output terminal. |
| 5-7 | VLC3-VLC1 | — | LCD power supply terminal. |
| 8 | VDD | Input | Microcomputer power supply +5V. |
| 9 | OSC2 | Output | Oscillator ground terminal for main clock. f=8MHz |
| 10 | OSC1 | Input | Oscillator ground terminal for main clock. f=8MHz |
| 11 | VSS | — | Microcomputer power supply GND. |
| 12 | XI | Input | Oscillator ground terminal for sub clock. f=32.768kHz |
| 13 | XO | Output | Oscillator ground terminal for sub clock. f=32.768kHz |
| 14 | MMOD | Input | Memory mode selection terminal. |
| 15 | VREF– | — | Power supply GND for AD converter. |
| 16 | KEY0 AN0/PA0 | Input | CD lid status detection input. |
| 17 | KEY1 AN0/PA1 | Input | Operation button input, Max-8 buttons. |
| 18 | KEY2 AN0/PA2 | Input | Operation button input, Max-8 buttons. |
| 19 | KEY3 AN0/PA3 | Input | MODEL/TUNER destination input. |
| 20 | KEY4 AN0/PA4 | Input | Current detection of CD lid control motor.<br>Used to decide the CD lid drive error to control it. |
| 21* | KEY5 AN0/PA5 | Input | CD servo auto adjustment mode selection input. |
| 22* | KEY6 AN0/PA6 | Input | Tape mechanism operating status detection input.<br>Decides the F.P/CAM-SW status with A/D value. |
| 23* | KEY7 AN7/PA7 | Input | Tuner signal meter (S meter) voltage input terminal. |
| 24 | VREF+ | Input | Power supply for A/D converter +5V. |
| 25 | TXD SBO0/P00 | Output | Data output terminal to TUNER PLL IC. |
| 26 | RXD SBI0/P01 | Input | Data input from TUNER PLL IC |
| 27 | SBT0/P02 | Output | Synchronous clock output with TUNER PLL IC |
| 28 | SBO1/P03 | Output | Enable output of TUNER PLL IC. "L" = OFF "H" = ON |
| 29* | SBI1/P04 | Output | Tape mechanism solenoid drive control output. |
| 30* | SBT1/P05 | Output | Tape mechanism motor drive control output. |
| 31* | DK/BZER P06 | Output | Recording/playback selection output of tape circuit.<br>"H" = Recording mode, "L" = Playback mode |
| 32 | RST/P27 | Input | Reset signal input |
| 33* | RMOUT P10 | Input | CLOCK/TIMER/SLEEP button input. |
| 34* | P11 | Input | Tape run/END detection input. Decided as tape run if pulse is input. |
| 35* | TM2IO P12 | Output | Recording bias oscillation circuit control output.<br>"H" = Bias oscillation, "L" = oscillation stop. |
| 36* | TM3IO P13 | Output | Recording bias oscillation frequency selection control output. |
| 37 | TM4IO P14 | Input | Power (POWER) button input detection. |
| 38 | IRQ0 P20 | Input | Switches to the HALT mode when changing to . "L" at power failure detection input. |
| 39 | SENS IRQ1/P21 | Input | Remote control signal input. |
| 40 | IRQ2 P22 | Input | Synchronous clock input with RDS IC. |
| 41* | IRQ3 P23 | Input | Jog dial UP pulse input. |
| 42* | IRQ4 P24 | Input | Jog dial DOWN pulse input. |
| 43* | P30 | Output | SURROUND control output. |
| 44 | P31 | Output | POWER IC STAND-BY terminal CONTROL. |
| 45 | P32 | Output | Power mute output. "H" = MUTE ON "L" = MUTE OFF |
| 46 | LED0 WE/P50 | Output | CD servo power supply circuit control output. "H" = CD power ON "L" = CD power OFF |
| 47 | LED1 RE/P51 | Output | Main TRANS RELAY CONTROL. "H" = ON "L" = OFF |
| 48 | LED2 CS/P52 | Input | Data input from RDS IC. |
| 49 | LDE3/S51 A16/P53 | Input | Radio stereo broadcast reception detection input. "L" = During stereo broadcast reception |
| 50 | LED4/S50 A17/P54 | Input | Broadcast reception status detection input. "L" = During broadcasting signal reception |
| 51 | SEG49 P60/A0 | Output | LCD backlight control signal output. "H" = Backlight ON, "L" = Backlight OFF |
| 52* | SEG48 P61/A1 | Output | |
| 53 | SEG47 P62/A2 | Output | LED illumination control of electric JOG dial. "H" = ON "L" = OFF |

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

## IC701 RH-iX0037SJZZ: System Microcomputer/FL driver (IX0037SJ) (2/2)

| Pin No. | Terminal Name | Input/Output | Function |
|---|---|---|---|
| 54 | SEG46 P63/A3 | Output | Electric JOG dial UP. |
| 55* | SEG45 P64/A4 | Output | Electric JOG dial DOWN. |
| 56 | SEG44 P65/A5 | Output | Electric CD lid OPEN. |
| 57 | SEG43 P66/A6 | Output | Electric CD lid CLOSE. |
| 58 | SEG42 P67/A7 | Input | CD pickup position detection SW input. "L" = Innerst periphery |
| 59 | SEG41 P70/A8 | Output | Reset signal output for TC9462F |
| 60 | SEG40 P71/A9 | Output | ON/OFF output terminal of CD servo control IC. "H" = Servo ON "L" = Servo stand-by |
| 61-64 | SEG39 P72/A10-SEG36 P75/A13 | Input/Output | Data input/output terminal for TC9462F control. |
| 65 | SEG35 P76/A14 | Output | Data synchronous clock output for TC9462F. |
| 66 | SEG34 P77/A15 | Output | Chip enable terminal for TC9462F. "L" = BUS terminal active |
| 67 | SEG33 P87/D7 | Output | LCD segment output. |
| 68 | SEG32 P86/D6 | Output | LCD segment output. |
| 69-74 | SEG31 P85/D5-SEG26 P80/D0 | Output | LCD segment output |
| 75-100 | SEG25-SEG0 | Output | LCD segment output |

## IC701 RH-iX0037SJZZ: System Microcomputer/FL driver (IX0037SJ)

| | | |
|---|---|---|
| COM3 | O | 1 |
| COM2 | O | 2 |
| COM1 | O | 3 |
| COM0 | O | 4 |
| VLC3 | | 5 |
| VLC2 | | 6 |
| VLC1 | | 7 |
| VDD | | 8 |
| OSC2 | O | 9 |
| OSC1 | I | 10 |
| VSS | | 11 |
| XI | I | 12 |
| XO | O | 13 |
| MMOD | I | 14 |
| VREF– | | 15 |
| CLID_SW | I | 16 |
| KEY1 | I | 17 |
| KEY2 | I | 18 |
| MODEL | I | 19 |
| CLID_PRO | I | 20 |
| NC | I | 21 |
| NC | I | 22 |
| NC | I | 23 |
| VREF+ | | 24 |
| DI | O | 25 |

| | | |
|---|---|---|
| 75 | S | SEG25 |
| 74 | S | SEG26 |
| 73 | S | SEG27 |
| 72 | S | SEG28 |
| 71 | S | SEG29 |
| 70 | S | SEG30 |
| 69 | S | SEG31 |
| 68 | S | SEG32 |
| 67 | S | SEG33 |
| 66 | O | CCE |
| 65 | O | BUCK |
| 64 | I/O | BUS3 |
| 63 | I/O | BUS2 |
| 62 | I/O | BUS1 |
| 61 | I/O | BUS0 |
| 60 | O | CD_STB |
| 59 | O | CD_RES |
| 58 | I | PU-IN |
| 57 | O | CLID_DW |
| 56 | O | CLID_UP |
| 55 | O | NC |
| 54 | O | DIMMER |
| 53 | O | LIGHT |
| 52 | | NC |
| 51 | O | B-LIGHT |

| | | |
|---|---|---|
| 100 | S | SEG0 |
| 99 | S | SEG1 |
| 98 | S | SEG2 |
| 97 | S | SEG3 |
| 96 | S | SEG4 |
| 95 | S | SEG5 |
| 94 | S | SEG6 |
| 93 | S | SEG7 |
| 92 | S | SEG8 |
| 91 | S | SEG9 |
| 90 | S | SEG10 |
| 89 | S | SEG11 |
| 88 | S | SEG12 |
| 87 | S | SEG13 |
| 86 | S | SEG14 |
| 85 | S | SEG15 |
| 84 | S | SEG16 |
| 83 | S | SEG17 |
| 82 | S | SEG18 |
| 81 | S | SEG19 |
| 80 | S | SEG20 |
| 79 | S | SEG21 |
| 78 | S | SEG22 |
| 77 | S | SEG23 |
| 76 | S | SEG24 |

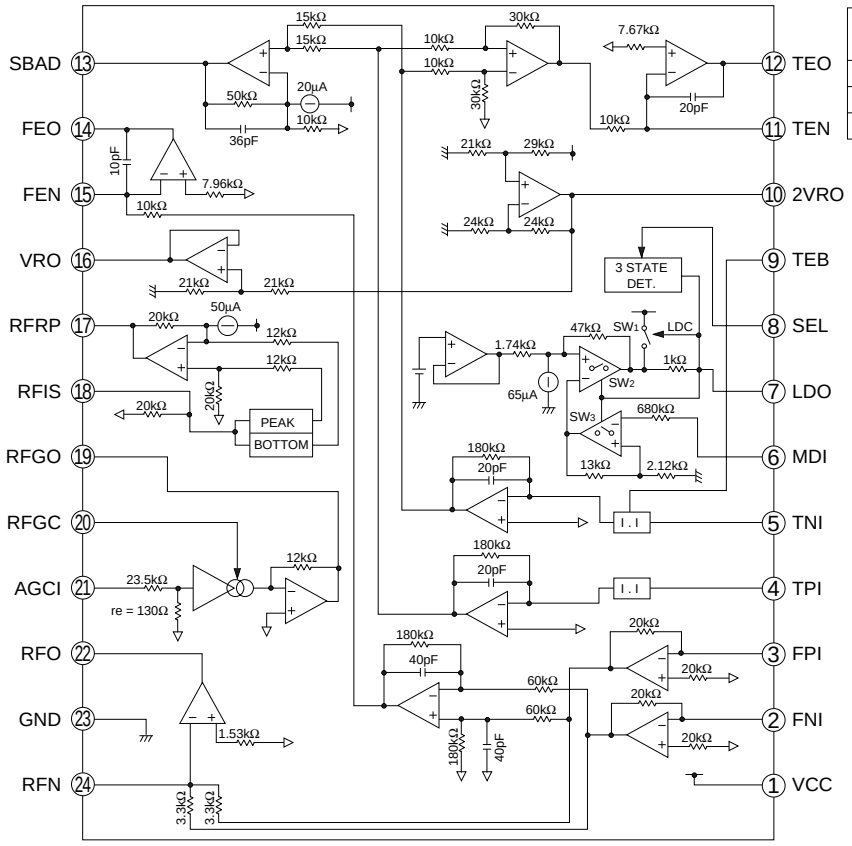
| | | |
|---|---|---|
| 26 | I | DO |
| 27 | O | CL |
| 28 | O | CE |
| 29 | O | NC |
| 30 | O | NC |
| 31 | O | NC |
| 32 | I | RESET |
| 33 | I | NC |
| 34 | I | NC |
| 35 | O | NC |
| 36 | O | NC |
| 37 | I | POWER |
| 38 | I | SYS_STOP |
| 39 | I | REMOCON |
| 40 | I | CLE |
| 41 | I | NC |
| 42 | I | NC |
| 43 | O | SURR |
| 44 | O | P-STB |
| 45 | O | P-MUTE |
| 46 | O | CD+B |
| 47 | O | P-CONT |
| 48 | O | DATA |
| 49 | O | STEREO |
| 50 | I | SD |

**Figure 54 BLOCK DIAGRAM OF IC**

## IC801 VHiTA2109F/-1:Servo Pre Amp. (TA2109F)

| Pin No. | Terminal Name | Input/Output | Function |
|---|---|---|---|
| 1 | VCC | — | Power voltage terminal |
| 2 | FNI | Input | Main beam amp input terminal |
| 3 | FPI | Input | Main beam amp input terminal |
| 4 | TPI | Input | Sub-beam amp input terminal |
| 5 | TNI | Input | Sub-beam amp input terminal |
| 6 | MDI | Input | Monitor photodiode amp input terminal |
| 7 | LDO | Output | Laser diode amp output terminal |
| 8 | SEL | Input | Laser diode control signal input and APC circuit ON/OFF signal input terminal |
| 9 | TEB | Input | Tracking error balance adjustment signal input terminal<br>To be controlled by 3-value PWM signal. (PWM carrier = 88.2 kHz) |
| 10 | 2VRO | Output | Standard voltage (2VR) output terminal. When Vcc = 5V, 2VR = 4.2V. |
| 11 | TEN | Input | Tracking error signal generation amp reversed phase input terminal |
| 12 | TEO | Output | Tracking error signal generation amp output terminal |
| 13 | SBAD | Output | Sub-beam addition signal output terminal |
| 14 | FEO | Output | Focus error signal generation amp output terminal |
| 15 | FEN | Input | Focus error signal generation amp reversed phase input terminal |
| 16 | VRO | Output | Standard voltage (VR) output terminal. When Vcc = 5V, VR = 2.1V. |
| 17 | RFRP | Output | Track count signal generation amp output terminal |
| 18 | RFIS | Input | RFRP detection circuit input terminal |
| 19 | RFGO | Output | RF signal output terminal |
| 20 | RFGC | Input | RF amplitude adjustment control signal input terminal<br>The amplitude of RF signal can be controlled by using the 3-value PWM signal (PWM carrier = 88.2 kHz) which is output from the RFGC terminal of TC9432F. |
| 21 | AGCI | Input | RF signal amplitude adjustment amp input terminal |
| 22 | RFO | Output | RF signal generation amp output terminal |
| 23 | GND | — | GND terminal |
| 24 | RFN | Input | RF reversed phase input terminal |

## IC801 VHiTA2109F/-1:Servo Pre Amp. (TA2109F)




| SEL | LDC | | |
|---|---|---|---|
| | SW1 | SW2 | SW3 |
| L | ON | OFF | OFF |
| HiZ | OFF | ON | ON |
| H | OFF | ON | ON |

**Figure 55 BLOCK DIAGRAM OF IC**

## IC802 VHiTC9462F/-1: Servo/Signal Control (TC9462F) (1/3)

<table>
<tr><th>Pin No.</th><th>Port Name</th><th>Input/Output</th><th>Function</th></tr>
<tr><td>1*</td><td>TEST0</td><td>Input</td><td>Test mode terminal. To be opened usually.</td></tr>
<tr><td>2*<br>3*</td><td>/HSO<br>/UHSO</td><td>Output<br>Output</td><td>Playback speed mode flag output terminal.
<table>
<tr><th>/UHSO</th><th>/HSO</th><th>Playback speed</th></tr>
<tr><td>H</td><td>H</td><td>x1 speed playback</td></tr>
<tr><td>H</td><td>L</td><td>x2 speed playback</td></tr>
<tr><td>L</td><td>H</td><td>x4 speed playback</td></tr>
<tr><td>L</td><td>L</td><td>—</td></tr>
</table></td></tr>
<tr><td>4*</td><td>EMPH</td><td>Output</td><td>Sub-code Q data emphasis flag output terminal. "H": Emphasis ON "L": Emphasis OFF<br>The output polarity can be inverted by command.</td></tr>
<tr><td>5*</td><td>LRCK</td><td>Output</td><td>Channel clock (44.1 kHz) output terminal. "L": L channel "H": R channel<br>The output polarity can be inverted by command.</td></tr>
<tr><td>6</td><td>VSS</td><td>—</td><td>Digital ground terminal.</td></tr>
<tr><td>7*</td><td>BCK</td><td>Output</td><td>Bit clock (1.4122 MHz) output terminal.</td></tr>
<tr><td>8*</td><td>AOUT</td><td>Output</td><td>Audio data output terminal.</td></tr>
<tr><td>9</td><td>DOUT</td><td>Output</td><td>Digital out output terminal.</td></tr>
<tr><td>10*</td><td>MBOV</td><td>Output</td><td>Buffer memory over signal output terminal. "H": Over</td></tr>
<tr><td>11*</td><td>IPF</td><td>Output</td><td>Correction flag output terminal.<br>"H": When AOUT output is correction-disabled symbol in case of C2 correction output.</td></tr>
<tr><td>12*</td><td>SBOK</td><td>Output</td><td>Sub-code Q data CRCC judgment result output terminal. "H": When judgment result is OK.</td></tr>
<tr><td>13*</td><td>CLCK</td><td>Input/Output</td><td>Sub-code P-W data read clock output/input terminal. Selectable with command bit.</td></tr>
<tr><td>14</td><td>VDD</td><td>Input</td><td>Digital + power terminal.</td></tr>
<tr><td>15</td><td>VSS</td><td>—</td><td>Digital ground terminal.</td></tr>
<tr><td>16*</td><td>DATA</td><td>Output</td><td>Sub-code P-W data output terminal.</td></tr>
<tr><td>17*</td><td>SFSY</td><td>Output</td><td>Playback system frame sync signal output terminal.</td></tr>
<tr><td>18*</td><td>SBSY</td><td>Output</td><td>Sub-code block sync output terminal. "H": On S1 position when the sub-code sync is detected.</td></tr>
<tr><td>19*</td><td>SPCK</td><td>Output</td><td>Processor status signal read clock (176.4 kHz) output terminal.</td></tr>
<tr><td>20*</td><td>SPDA</td><td>Output</td><td>Processor status signal output terminal.</td></tr>
<tr><td>21*</td><td>COFS</td><td>Output</td><td>Correction system frame clock (7.35 kHz) output terminal.</td></tr>
<tr><td>22*</td><td>MONIT</td><td>Output</td><td>LSI internal signal monitor terminal.<br>It is possible to monitor the DSP internal flag and PLL system clock with the microcomputer command. Terminal for serial output of text data according to command.</td></tr>
<tr><td>23</td><td>VDD</td><td>Input</td><td>Digital + power terminal.</td></tr>
<tr><td>24</td><td>TESIO0</td><td>Input</td><td>Test input/output terminal. To be fixed to "L" usually.<br>Terminal to input the text data read clock according to command.</td></tr>
<tr><td>25</td><td>P2VREF</td><td>—</td><td>2VREF terminal for PLL system.</td></tr>
<tr><td>26*</td><td>HSSW</td><td>Output</td><td>VREF voltage in case of x2 speed/x4 speed.</td></tr>
<tr><td>27*</td><td>ZDET</td><td>Output</td><td>1-bit DAC zero detection flag output terminal.</td></tr>
<tr><td>28</td><td>PDO</td><td>Output</td><td>Terminal to output the phase difference between EFM signal and PLCK signal.</td></tr>
<tr><td>29*</td><td>TMAXS</td><td>Output</td><td>TMAX detection result output terminal. To be selected with command bit TMPS.</td></tr>
<tr><td>30</td><td>TMAX</td><td>Output</td><td>TMAX detection result output terminal. To be selected with command bit TMPS.
<table>
<tr><th>TMAX detection result</th><th>TMAX output</th></tr>
<tr><td>Longer than specific period</td><td>"P2VREF"</td></tr>
<tr><td>Shorter than specific period</td><td>"VSS"</td></tr>
<tr><td>Within specific period</td><td>"HIZ"</td></tr>
</table></td></tr>
<tr><td>31</td><td>LPFN</td><td>Input</td><td>Low-pass filter amp inverted input terminal.</td></tr>
<tr><td>32</td><td>LPFO</td><td>Output</td><td>Low-pass filter amp output terminal.</td></tr>
<tr><td>33</td><td>PVREF</td><td>Input</td><td>VREF terminal for PLL system.</td></tr>
<tr><td>34</td><td>VCOREF</td><td>Input</td><td>VCO center frequency standard level terminal. To be fixed to PVref usually.</td></tr>
<tr><td>35</td><td>VCOF</td><td>Output</td><td>VCO filter terminal.</td></tr>
<tr><td>36</td><td>AVSS</td><td>—</td><td>Analog system ground terminal.</td></tr>
<tr><td>37</td><td>SLCO</td><td>Output</td><td>Data slice level generation DAC output terminal.</td></tr>
<tr><td>38</td><td>RFI</td><td>Input</td><td>RF signal input terminal.</td></tr>
</table>

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

## IC802 VHiTC9462F/-1: Servo/Signal Control (TC9462F) (2/3)

| Pin No. | Port Name | Input/Output | Function |
|---|---|---|---|
| 39 | AVDD | Input | Analog system power terminal. |
| 40 | RFCT | Input | RFRP signal center level input terminal. |
| 41 | RFZI | Input | RFRP zero cross input terminal. |
| 42 | RFRP | Input | RF ripple signal input terminal. |
| 43 | FEI | Input | Focus error signal input terminal. |
| 44 | SBAD | Input | Sub-beam addition signal input terminal. |
| 45 | TSIN | Input | Test input terminal. To be fixed to Vref usually. |
| 46 | TEI | Input | Tacking error input terminal. (Tracking servo ON: Taking-in). |
| 47 | TEZI | Input | Tracking error, zero cross input termina.l |
| 48 | FOO | Output | Focus equalizer output terminal. |
| 49 | TRO | Output | Tracking equalizer output terminal. |
| 50 | VREF | Input | Analog standard power terminal. |
| 51 | RFGC | Output | RF amplitude adjustment control signal output terminal.<br>3-value PWM signal is output. (PWM carrier = 88.2 kHz) |
| 52 | TEBC | Output | Tracking balance control signal output terminal.<br>3-value PWM signal is output. (PWM carrier = 88.2 kHz) |
| 53 | FMO | Output | Feed equalizer output terminal. 3-value PWM signal is output. (PWM carrier = 88.2 kHz) |
| 54* | FVO | Output | Speed error signal or feed search EQ output terminal.<br>3-value PWM signal is output. (PWM carrier = 88.2 kHz) |
| 55 | DMO | Output | Disc equalizer output terminal.<br>3-value PWM signal is output. (PWM carrier = DSP system 88.2 kHz, sync with PXO) |
| 56 | 2VREF | Input | Analog standard power terminal (2xVREF) |
| 57 | SEL | Output | APC circuit ON/OFF signal output terminal.<br>When laser is ON and UHS = L, "Hi-Z". When UHS = H, "H" output is obtained. |
| 58* | FLGA | Output | Internal signal monitor external flag output terminal.<br>TEZC, FOON, FOK and RFZC signals can be selected with command. |
| 59* | FLGB | Output | Internal signal monitor external flag output terminal.<br>DFCT, FOON, FMON and RFZC signals can be selected with command. |
| 60* | FLGC | Output | Internal signal monitor external flag output terminal.<br>TRON, TRSR, FOK, and SRCH signals can be selected with command. |
| 61* | FLGD | Output | Internal signal monitor external flag output terminal.<br>TRON, DMON, HYS and SHC signals can be selected with command. |
| 62 | VDD | Input | Digital + power terminal. |
| 63 | VSS | — | Digital ground terminal. |
| 64*<br>65*<br>66*<br>67* | IO0<br>IO1<br>IO2<br>IO3 | Input/Output | General-use I/O port.<br>The input port and output port can be selected with command. In case of input port the terminal state (H/L) can be read with the read command.<br>In case of output port the terminal state (H/L/HiZ) can be controlled with command. |
| 68* | /DMOUT | Input | Terminal to set the mode to output 2-value PWM of feed equalizer from IO0,1 terminal and 2-value PWM of disc equalizer from IO2,3 terminal. "L" active |
| 69* | /CKSE | Input | To be opened usually. |
| 70* | /DACT | Input | DAC test mode terminal. To be opened usually. |
| 71 | TESIN | Input | Test input terminal (externally provided VCO clock input terminal). To be fixed to "L" usually. |
| 72 | TESIO1 | Input | Test input/output terminal. To be fixed to "L" usually. |
| 73 | VSS | — | Digital ground terminal. |
| 74 | PXI | Input | DSP system clock oscillation circuit input terminal. To be fixed to "L" usually. |
| 75* | PXO | Output | DSP system clock oscillation circuit output terminal. |
| 76 | VDD | Input | Digital + power terminal. |
| 77 | XVSS | — | System clock oscillation circuit ground terminal. |
| 78 | XI | Input | System clock oscillation input terminal. |
| 79 | XO | Output | System clock oscillation circuit output terminal. |
| 80 | XVDD | Input | System clock oscillation circuit + power terminal. |
| 81 | DVSR | Input | R channel D/A converting section power terminal. |
| 82 | RO | Output | R channel data forward rotation output terminal. |

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

## IC802 VHiTC9462F/-1: Servo/Signal Control (TC9462F) (3/3)

| Pin No. | Port Name | Input/Output | Function |
|---|---|---|---|
| 83 | DVDD | Input | D/A converting section power terminal. |
| 84 | DVR | Input | Reference voltage terminal. |
| 85 | LO | Output | L channel data forward rotation output terminal. |
| 86 | DVSL | Input | L channel D/A converting section power terminal. |
| 87* | TEST1 | Input | Test mode terminal. To be opened usually. |
| 88* | TEST2 | Input | Test mode terminal. To be opened usually. |
| 89* | TEST3 | Input | Test mode terminal. To be opened usually. |
| 90-93 | BUS0-BUS3 | Input/Output | Microcomputer interface data input/output terminal. |
| 94 | VDD | Input | Digital + power terminal. |
| 95 | VSS | — | Digital ground terminal. |
| 96 | BUCK | Input | Microcomputer interface clock input terminal. |
| 97 | /CCE | Input | Microcomputer interface chip enable signal input terminal. "L": BUS0 to 3 is active. |
| 98* | TEST4 | Input | Test mode termina. To be opened usually. |
| 99* | /TSMOD | Input | Local test mode selection terminal. |
| 100 | /RST | Input | Reset signal input terminal. "L": Reset. |

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

## IC802 VHiTC9462F/-1: Servo/Signal Control (TC9462F)

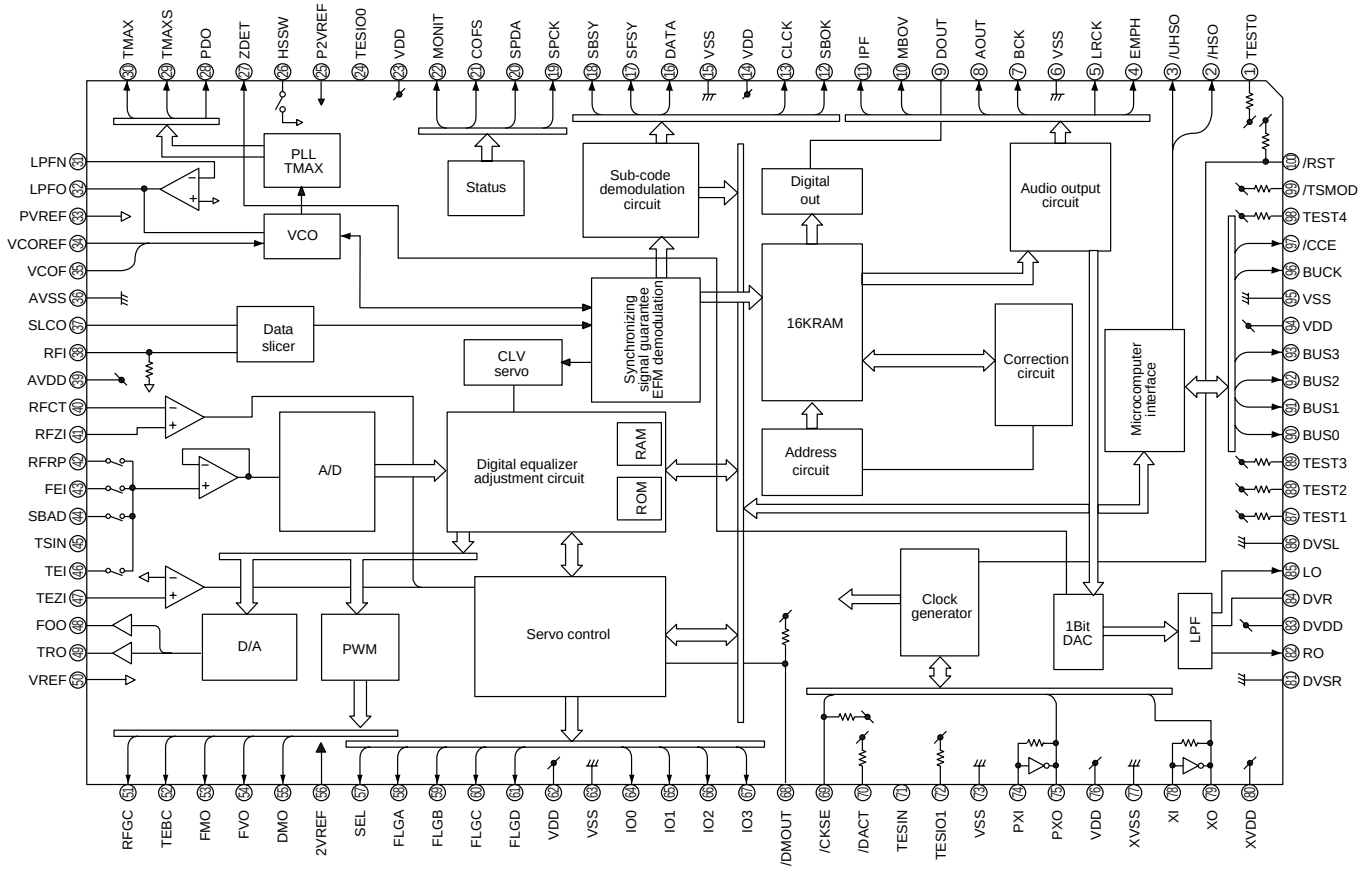



**Figure 58 BLOCK DIAGRAM OF IC**

## IC804 VHiMM1469XH-1: Focus/Tracking/Spin/Sled Driver (MM1469XH)

| Pin No. | Port Name | Function |
|---|---|---|
| 1 | CH1-OUT-A | Driver CH1 negative output |
| 2 | CH1-OUT-B | Driver CH1 positive output |
| 3 | CH1-IN-A | Driver CH1 input |
| 4 | CH1-IN-B | Driver CH1 input, gain adjustment pin |
| 5 | Tr-B | Connect to external transistor base |
| 6 | VREG-OUT | Constant voltage output, connects to external transistor collector |
| 7 | MUTE | Driver mute control input |
| 8 | GND | GND |
| 9 | CH2-IN-B | Driver CH2 input, gain adjustment pin |
| 10 | CH2-IN-A | Driver CH2 input |
| 11 | CH2-OUT-B | Driver CH2 positive output |
| 12 | CH2-OUT-A | Driver CH2 negative output |
| 13 | Substrate GND | Substrate GND |
| 14* | OP-OUT | Operational amplifier output |
| 15* | OP-IN(–) | Operational amplifier input, negative |
| 16* | OP-IN(+) | Operational amplifier input, positive |
| 17 | CH3-OUT-A | Driver CH3 negative output |
| 18 | CH3-OUT-B | Driver CH3 positive output |
| 19 | CH3-IN-A | Driver CH3 input |
| 20* | CH3-IN-B | Driver CH3 input, gain adjustment pin |
| 21 | Vcc | Vcc |
| 22 | Vcc | Vcc |
| 23 | BIAS-IN | Bias amplifier input |
| 24 | CH4-IN-B | Driver CH4 input, gain adjustment pin |
| 25 | CH4-IN-A | Driver CH4 input |
| 26 | CH4-OUT-B | Driver CH4 positive output |
| 27 | CH4-OUT-A | Driver CH4 negative output |
| 28 | Substrate GND | Substrate GND |

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.
GND (lowest potential) is connected to the frame of pin center.

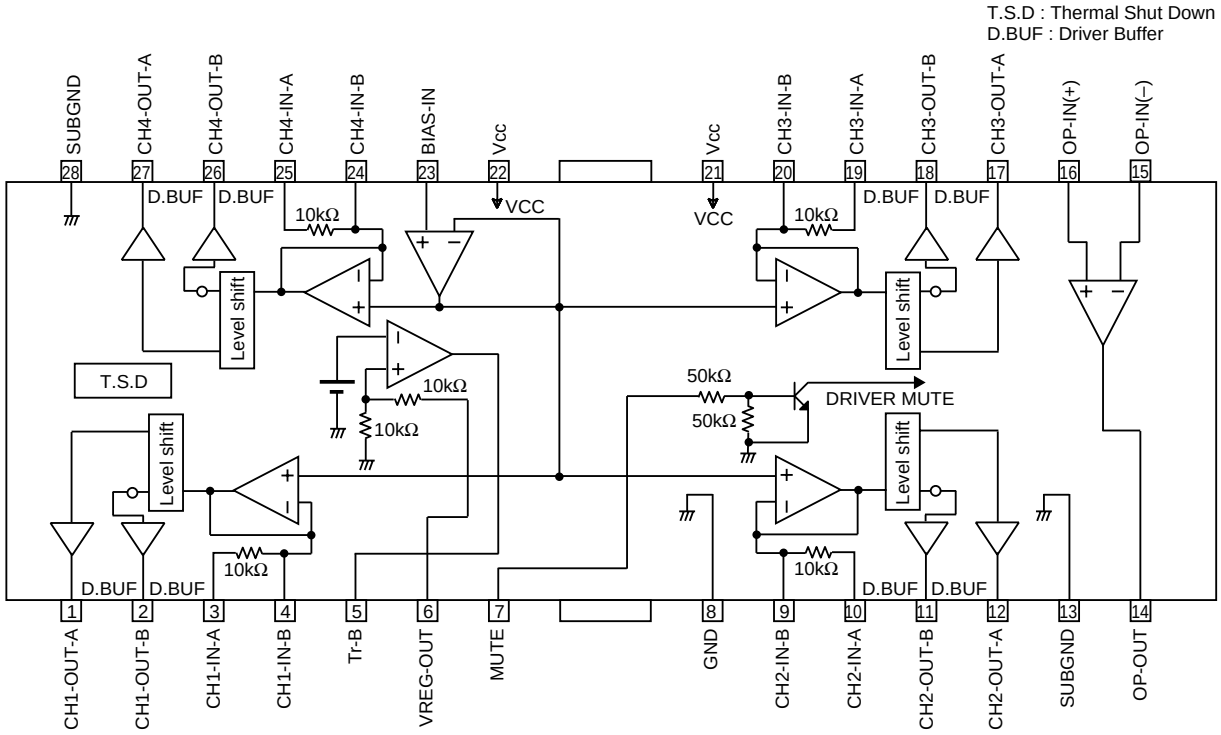
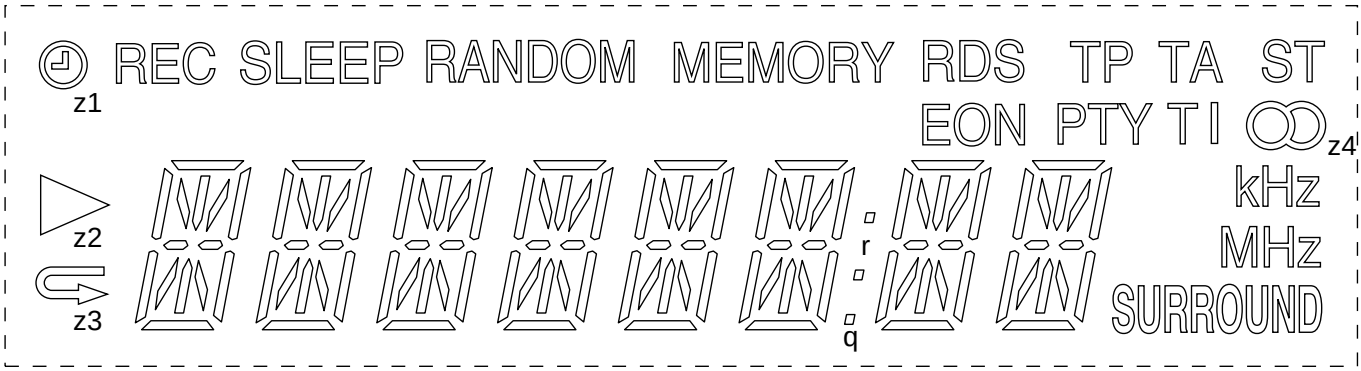



**Figure 59 BLOCK DIAGRAM OF IC**

**LCD701: RV-LX0014SJZZ LCD Display (XL-1000H)**
**LCD701: RV-LX0012SJZZ LCD Display (XL-1100H)**



| PinNo | com1 | com2 | com3 | com4 |
|---|---|---|---|---|
| 1 | com1 | | | |
| 2 | | com2 | | |
| 3 | | | com3 | |
| 4 | | | | com4 |
| 5 | z1 | b1 | c1 | z2 |
| 6 | h1 | j1 | l1 | k1 |
| 7 | g1 | n1 | m1 | d1 |
| 8 | a1 | p1 | f1 | e1 |
| 9 | REC | b2 | c2 | z3 |
| 10 | h2 | j2 | l2 | k2 |
| 11 | g2 | n2 | m2 | d2 |
| 12 | a2 | p2 | f2 | e2 |
| 13 | SLEEP | b3 | c3 | MHz |
| 14 | h3 | j3 | l3 | k3 |
| 15 | g3 | n3 | m3 | d3 |
| 16 | a3 | p3 | f3 | e3 |
| 17 | RANDOM | b4 | c4 | kHz |
| 18 | h4 | j4 | l4 | k4 |
| 19 | g4 | n4 | m4 | d4 |
| 20 | a4 | p4 | f4 | e4 |
| 21 | MEMORY | b5 | c5 | z4 |

| PinNo | com1 | com2 | com3 | com4 |
|---|---|---|---|---|
| 22 | h5 | j5 | l5 | k5 |
| 23 | g5 | n5 | m5 | d5 |
| 24 | a5 | p5 | f5 | e5 |
| 25 | RDS | b6 | c6 | ST |
| 26 | h6 | j6 | l6 | k6 |
| 27 | g6 | n6 | m6 | d6 |
| 28 | a6 | p6 | f6 | e6 |
| 29 | r | b7 | c7 | q |
| 30 | h7 | j7 | l7 | k7 |
| 31 | g7 | n7 | m7 | d7 |
| 32 | a7 | p7 | f7 | e7 |
| 33 | TP | b8 | c8 | |
| 34 | h8 | j8 | l8 | k8 |
| 35 | g8 | n8 | m8 | d8 |
| 36 | a8 | p8 | f8 | e8 |
| 37 | EON | PTY | TI | TA |
| 38 | | | | SRS(0) |
| 39 | | | | com4 |
| 40 | | | com3 | |
| 41 | | com2 | | |
| 42 | com1 | | | |

**Figure 60 LCD SEGMENT**

# SHARP PARTS GUIDE

## MODEL XL-1000H

**XL-1000H Compact Audio System consisting of XL-1000H (main unit) and CP-XL1000H (speaker system).**

## MODEL XL-1100H

**XL-1100H Compact Audio System consisting of XL-1100H (main unit) and CP-XL1100H (speaker system).**

**"HOW TO ORDER REPLACEMENT PARTS"**

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. No.
3. PART NO.
4. DESCRIPTION

★ MARK: SPARE PARTS-DELIVERY SECTION

**For U.S.A. only**

Contact your nearest SHARP Parts Distributor to order.

For location of SHARP Parts Distributor,
Please call Toll-Free;
1-800-BE-SHARP

## Explanation of capacitors/resistors parts codes

### Capacitors

VCC ..... Ceramic type
VCK ..... Ceramic type
VCT ..... Semiconductor type
VC • • MF ..... Cylindrical type (without lead wire)
VC • • MN ..... Cylindrical type (without lead wire)
VC • • TV ..... Square type (without lead wire)
VC • • TQ ..... Square type (without lead wire)
VC • • CY ..... Square type (without lead wire)
VC • • CZ ..... Square type (without lead wire)
VC • • • • • • • • • J .. The 13th character represents capacity difference.
("J" ±5%, "K" ±10%, "M" ±20%, "N" ±30%,
"C" ±0.25 pF, "D" ±0.5 pF, "Z" +80-20%.)

If there are no indications for the electrolytic capacitors, error is ±20%.

### Resistors

VRD ..... Carbon-film type
VRS ..... Carbon-film type
VRN ..... Metal-film type
VR • • MF ..... Cylindrical type (without lead wire)
VR • • MN ..... Cylindrical type (without lead wire)
VR • • TV ..... Square type (without lead wire)
VR • • TQ ..... Square type (without lead wire)
VR • • CY ..... Square type (without lead wire)
VR • • CZ ..... Square type (without lead wire)
VR • • • • • • • • • J .. The 13th character represents error.
("J" ±5%, "F" ±1%, "D" ±0.5%.)

If there are no indications for other parts, the resistors are ±5% carbon-film type.

**NOTE:**
Parts marked with "⚠" are important for maintaining the safety of the set.
Be sure to replace parts with specified ones for maintaining the safety and performance of the set.

| NO. | PARTS CODE | ★ | PRICE RANK | DESCRIPTION |
|---|---|---|---|---|
| **INTEGRATED CIRCUITS** | | | | |
| IC302 | VHILC72131/-1 | J | AP | PLL (Tuner),LC72131 |
| IC303 | VHILA1832S/-1 | J | AN | FM IF Det./FM Mpx./AM IF, LA1832S |
| IC401 | VHILC75342M-1 | J | AN | Function/Volume Equalizer, LC75342M |
| IC681 | VHIAN78L05/-1 | J | AE | Constant Voltage Regulator, AN78L05 |
| IC701 | RH-IX0037SJZZ | J | AW | System Microcomputer/FL Driver, IX0037SJ |
| IC801 | VHITA2109F/-1 | J | AL | Servo Pre Amp.,TA2109F |
| IC802 | VHITC9462F/-1 | J | AZ | Servo/Signal Control,TC9462F |
| IC804 | VHIMM1469XH-1 | J | AN | Focus/Tracking/Spin/Sled Driver, MM1469XH |
| IC805 | VHITA7291S/-1 | J | AH | CD Lid Motor Driver,TA7291S |
| IC901 | VHILA4282//-1 | J | AM | Power Amp.,LA4282 |
| **TRANSISTORS** | | | | |
| Q101 | VSKRC102M//-1 | J | AC | Digital,NPN,KRC102 M |
| Q102 | VSKRC102M//-1 | J | AC | Digital,NPN,KRC102 M |
| Q301 | VS2SC380-O/-1 | J | AC | Silicon,NPN,2SC380 O |
| Q351 | VSKRC104M//-1 | J | AC | Digital,NPN,KRC104 M |
| Q360 | VSKTA1266GR-1 | J | AB | Silicon,PNP,KTA1266 GR |
| Q601,602 | VSKTC3199GR-1 | J | AB | Silicon,NPN,KTC3199 GR |
| Q603 | VSKTC3200GR-1 | J | AC | Silicon,NPN,KTC3200 GR |
| Q604,605 | VS2SD2012Y/-1 | J | AF | Silicon,NPN,2SD2012 Y |
| Q606 | VSKTC3200GR-1 | J | AC | Silicon,NPN,KTC3200 GR |
| Q607 | VS2SD2012Y/-1 | J | AF | Silicon,NPN,2SD2012 Y |
| Q608 | VSKRA102M//-1 | J | AC | Digital,PNP,KRA102 M |
| Q609 | VSKRC107M//-1 | J | AC | Digital,NPN,KRC107 M |
| Q681 | VSKTC3199GR-1 | J | AB | Silicon,NPN,KTC3199 GR |
| Q683 | VSKTC3199GR-1 | J | AB | Silicon,NPN,KTC3199 GR |
| Q701 | VSKRC102M//-1 | J | AC | Digital,NPN,KRC102 M |
| Q702,703 | VSKTC3199GR-1 | J | AB | Silicon,NPN,KTC3199 GR |
| Q706 | VSKRC102M//-1 | J | AC | Digital,NPN,KRC102 M |
| Q707,708 | VSKTA1266GR-1 | J | AB | Silicon,PNP,KTA1266 GR |
| Q709 | VSKRC102M//-1 | J | AC | Digital,NPN,KRC102 M |
| Q801 | VSKTA1266GR-1 | J | AB | Silicon,PNP,KTA1266 GR |
| Q802 | VSKRC102M//-1 | J | AC | Digital,NPN,KRC102 M |
| Q861 | VS2SB562-C/-1 | J | AD | Silicon,PNP,2SB562 C |
| Q901 | VSKRC102M//-1 | J | AC | Digital,NPN,KRC102 M |
| Q902 | VSKTA1266GR-1 | J | AB | Silicon,PNP,KTA1266 GR |
| Q903 | VSKTC3199GR-1 | J | AB | Silicon,NPN,KTC3199 GR [XL-1100H Only] |
| Q904 | VSKTC3200GR-1 | J | AC | Silicon,NPN,KTC3200 GR [XL-1100H Only] |
| Q907 | VSKTA1266GR-1 | J | AB | Silicon,PNP,KTA1266 GR |
| Q908 | VSKRC102M//-1 | J | AC | Digital,NPN,KRC102 M |
| **DIODES** | | | | |
| D301~304 | VHD1N4148//-1 | J | AA | Silicon,1N4148 |
| D308 | VHD1N4148//-1 | J | AA | Silicon,1N4148 |
| D401~403 | VHD1N4004//-1 | J | AB | Silicon,1N4004 |
| D602 | VHD1N4148//-1 | J | AA | Silicon,1N4148 |
| D604 | VHD1N4148//-1 | J | AA | Silicon,1N4148 |
| ⚠ D651~654 | VHD1N5402M/-1 | J | AE | Silicon,1N5402M |
| ⚠ D657~660 | VHD1N4004//-1 | J | AB | Silicon,1N4004 |
| D681~685 | VHD1N4004//-1 | J | AB | Silicon,1N4004 |
| D688,689 | VHD1N4004//-1 | J | AB | Silicon,1N4004 |
| D720~723 | VHD1N4148//-1 | J | AA | Silicon,1N4148 |
| D801 | VHPDB5306X+-1 | J | AR | LED,DB5306X [XL-1100H] |
| D901,902 | VHD1N4004//-1 | J | AB | Silicon,1N4004 [XL-1100H Only] |
| LED701,702 | VHPSLI343YC-1 | J | | LED,SLI343YC [XL-1000H Only] |
| LED801 | VHPAUY3333+-1 | J | AF | LED,AUY3333 [XL-1000H] |
| ZD351 | VHEDZ5R1BSB-1 | J | AC | Zener,5.1V,DZ5.1BSB |
| ZD601 | VHEDZ130BSA-1 | J | AC | Zener,13V,DZ13BSA |
| ZD602 | VHEDZ8R2BSC-1 | J | AB | Zener,8.2V,DZ8.2BSC |
| ZD683,684 | VHEMTZJ160C-1 | J | AB | Zener,16V,MTZJ16C |
| ZD701 | VHEDZ3R3BSB-1 | J | AB | Zener,3.3V,DZ3.3BSB |
| ZD901 | VHEDZ240BSD-1 | J | AB | Zener,24V,DZ24BSD [XL-1100H Only] |
| ZD902 | VHEDZ5R6BSB-1 | J | AC | Zener,5.6V,DZ5.6BSB [XL-1100H Only] |
| **FILTERS** | | | | |
| CF301,302 | RFILF0072AFZZ | J | AG | FM IF |
| CF351 | RFILF0003AWZZ | J | AK | FM IF |
| CF352 | RFILA0003SJZZ | J | AF | AM IF |

| NO. | PARTS CODE | ★ | PRICE RANK | DESCRIPTION |
|---|---|---|---|---|
| **TRANSFORMERS** | | | | |
| T302 | RCILA0007SJZZ | J | AG | AM Tracking |
| T306 | RCILB0009SJZZ | J | AG | AM Band Coverage |
| T351 | RCILI0004SJZZ | J | AF | AM IF |
| ⚠ T651 | RTRNP0058SJZZ | J | AT | Power Transformer (Main) |
| ⚠ T681 | RTRNP0057SJZZ | J | AL | Power Transformer (Sub) |
| **COILS** | | | | |
| L341 | RBLN-0001AWZZ | J | AD | Balun |
| L342 | VP-DH2R2K0000 | J | AB | 2.2 µH,Peaking |
| L351,352 | VP-DH101K0000 | J | AB | 100 µH,Choke |
| L353 | VP-DH102K0000 | J | AB | 1 mH,Choke |
| L354 | RFILL0001AWZZ | J | AE | Low Pass Filter |
| L601,602 | RCILZ0024AWZZ | J | AC | 3 µH,Choke |
| L603~605 | VP-DH100K0000 | J | AB | 10 µH,Choke |
| L702 | VP-DH2R2K0000 | J | AB | 2.2 µH,Peaking |
| L801 | VP-DH100K0000 | J | AB | 10 µH,Choke |
| L802 | VP-XHR82K0000 | J | AC | 0.82 µH |
| L803 | VP-DH100K0000 | J | AB | 10 µH,Choke |
| L806 | VP-DH100K0000 | J | AB | 10 µH,Choke |
| ⚠ LF651 | RCILZ0003SJZZ | J | AE | Line Filter |
| **VARIABLE RESISTOR** | | | | |
| VR351 | RVR-M0999AFZZ | J | AB | 10 kohm (B),Semi-VR [FM Mute Level] |
| **VARIABLE CAPACITOR** | | | | |
| VD301 | VHCSVC348S/-1 | J | AK | Variable Capacitance,SVC348S |
| **VIBRATORS** | | | | |
| X351 | RCRM-0007SJZZ | J | AG | VCO,456 kHz |
| X352 | RCRSP0006SJZZ | J | AF | Crystal,4.5 MHz |
| X701 | RCRM-0008SJZZ | J | AG | Ceramic,8 MHz |
| X702 | RCRSP0011AWZZ | J | AC | Crystal,32.768 kHz |
| X801 | RCRSP0002SJZZ | J | AL | Crystal,16.93 MHz |
| **CAPACITORS** | | | | |
| C101 | VCKYPA1HF223Z | J | AB | 0.022 µF,50V |
| C102 | RC-GZA476AF1E | J | AB | 47 µF,25V,Electrolytic |
| C103 | RC-GZA107AF1E | J | AB | 100 µF,25V,Electrolytic |
| C104 | VCQYKA1HM823J | J | AC | 0.082 µF,50V,Mylar |
| C107 | VCQYKA1HM823J | J | AC | 0.082 µF,50V,Mylar |
| C108 | RC-GZA107AF1E | J | AB | 100 µF,25V,Electrolytic |
| C109 | RC-GZV477AF1E | J | AC | 470 µF,25V,Electrolytic |
| C110 | VCFYFA1HA104J | J | AC | 0.1 µF,50V,Thin Film |
| C111 | VCFYFA1HA104J | J | AC | 0.1 µF,50V,Thin Film |
| C112 | RC-GZA106AF1H | J | AB | 10 µF,50V,Electrolytic |
| C113 | VCKYPA1HF223Z | J | AB | 0.022 µF,50V |
| C114 | RC-GZV477AF1E | J | AC | 470 µF,25V,Electrolytic |
| C115 | VCFYFA1HA104J | J | AC | 0.1 µF,50V,Thin Film |
| C116 | VCFYFA1HA104J | J | AC | 0.1 µF,50V,Thin Film |
| C117 | VCKYPA1HB471K | J | AA | 470 pF,50V |
| C118 | VCKYPA1HB471K | J | AA | 470 pF,50V |
| C119 | VCCSPA1HL680J | J | AA | 68 pF,50V |
| C120 | VCKYPA1HB681K | J | AA | 680 pF,50V |
| C125 | RC-GZW228AF1H | J | AH | 2200 µF,50V,Electrolytic |
| C301 | VCKYPA1HF123Z | J | AD | 0.012 µF,50V |
| C302 | VCKYCY1HB102K | J | AA | 0.001 µF,50V |
| C329 | VCKYCY1EF223Z | J | AB | 0.022 µF,25V |
| C330 | VCCCPA1HH120J | J | AA | 12 pF (CH),50V |
| C331 | VCKYCY1EF473Z | J | AB | 0.047 µF,25V |
| C332 | VCKYPA1HF223Z | J | AB | 0.022 µF,50V |
| C334 | VCCUPA1HJ270J | J | AA | 27 pF (UJ),50V |
| C335 | VCKYCY1HB561K | J | AA | 560 pF,50V |
| C337 | VCKYPA1HF223Z | J | AB | 0.022 µF,50V |
| C341 | VCKYCY1EF223Z | J | AB | 0.022 µF,25V |
| C343 | VCCSCY1HL330J | J | AD | 33 pF,50V |
| C345~347 | VCKYCY1EF223Z | J | AB | 0.022 µF,25V |
| C348 | RC-GZA107AF1C | J | AB | 100 µF,16V,Electrolytic |
| C349 | VCKYCY1HB102K | J | AA | 0.001 µF,50V |
| C350,351 | VCKYCY1EF223Z | J | AB | 0.022 µF,25V |
| C352 | RC-GZA106AF1C | J | AB | 10 µF,16V,Electrolytic |
| C353,354 | VCKYCY1EF223Z | J | AB | 0.022 µF,25V |
| C355 | VCCSCY1HL220J | J | AD | 22 pF,50V |
| C356 | VCKYCY1HB102K | J | AA | 0.001 µF,50V |
| C357 | RC-GZA225AF1H | J | AB | 2.2 µF,50V,Electrolytic |

| NO. | PARTS CODE | ★ | PRICE RANK | DESCRIPTION |
|---|---|---|---|---|
| C358 | RC-GZA105AF1H | J | AB | 1 µF,50V,Electrolytic |
| C360,361 | VCKYCY1EF223Z | J | AB | 0.022 µF,25V |
| C362 | RC-GZA335AF1H | J | AB | 3.3 µF,50V,Electrolytic |
| C363 | VCKYCY1EF223Z | J | AB | 0.022 µF,25V |
| C364 | RC-GZA106AF1C | J | AB | 10 µF,16V,Electrolytic |
| C365 | VCKYCY1EF223Z | J | AB | 0.022 µF,25V |
| C366 | VCKYCY1HB102K | J | AA | 0.001 µF,50V |
| C367,368 | RC-EZD105AF1H | J | AB | 1 µF,50V,Electrolytic |
| C369 | VCCSCY1HL560J | J | AD | 56 pF,50V |
| C370 | RC-GZA105AF1H | J | AB | 1 µF,50V,Electrolytic |
| C371,372 | RC-EZD105AF1H | J | AB | 1 µF,50V,Electrolytic |
| C373,374 | VCTYPA1CX183K | J | AA | 0.018 µF,16V |
| C380 | RC-GZA106AF1C | J | AB | 10 µF,16V,Electrolytic |
| C381 | VCCCCY1HH120J | J | AA | 12 pF (CH),50V |
| C382 | VCCCCY1HH150J | J | AA | 15 pF (CH),50V |
| C383 | VCKYCY1EF223Z | J | AB | 0.022 µF,25V |
| C384 | VCKYCY1HB102K | J | AA | 0.001 µF,50V |
| C385 | VCKYPA1HF103Z | J | AB | 0.01 µF,16V |
| C386 | VCKYPA1HB331K | J | AA | 330 pF,50V |
| C387 | VCKYCY1EF223Z | J | AB | 0.022 µF,25V |
| C391 | RC-GZA476AF1C | J | AB | 47 µF,16V,Electrolytic |
| C392 | VCKYCY1HB102K | J | AA | 0.001 µF,50V |
| C393 | RC-GZA105AF1H | J | AB | 1 µF,50V,Electrolytic |
| C394 | RC-GZA476AF1C | J | AB | 47 µF,16V,Electrolytic |
| C395 | VCKYCY1EF223Z | J | AB | 0.022 µF,25V |
| C396 | RC-GZA107AF1A | J | AB | 100 µF,10V,Electrolytic |
| C397 | VCKYCY1EF223Z | J | AB | 0.022 µF,25V |
| C398 | RC-GZA107AF1A | J | AB | 100 µF,10V,Electrolytic |
| C399 | VCKYPA1HF223Z | J | AB | 0.022 µF,50V |
| C401~404 | RC-GZA106AF1C | J | AB | 10 µF,16V,Electrolytic |
| C407,408 | RC-GZA106AF1C | J | AB | 10 µF,16V,Electrolytic |
| C411 | VCKYPA1HB331K | J | AA | 330 pF,50V |
| C412 | VCKYPA1HB331K | J | AA | 330 pF,50V |
| C413 | VCKYPA1HB472K | J | AB | 0.0047 µF,50V |
| C415,416 | RC-GZA106AF1C | J | AB | 10 µF,16V,Electrolytic |
| C417,418 | RC-GZA225AF1H | J | AB | 2.2 µF,50V,Electrolytic |
| C419,420 | VCKYCY1HB272K | J | AA | 0.0027 µF,50V |
| C421~424 | RC-QZA104AFYJ | J | AC | 0.1 µF,50V,Mylar |
| C425,426 | RC-GZA106AF1C | J | AB | 10 µF,16V,Electrolytic |
| C429 | RC-GZA336AF1C | J | AB | 33 µF,16V,Electrolytic |
| C430 | RC-GZA107AF1C | J | AB | 100 µF,16V,Electrolytic |
| C431~433 | VCKYCY1HB221K | J | AA | 220 pF,50V |
| C603 | RC-GZA107AF1C | J | AB | 100 µF,16V,Electrolytic |
| C604 | VCCSPA1HL470J | J | AA | 47 pF,50V |
| C605 | VCCSPA1HL470J | J | AA | 47 pF,50V |
| C617,618 | VCKYPA1HB472K | J | AB | 0.0047 µF,50V |
| C620 | RC-GZV477AF1E | J | AC | 470 µF,25V,Electrolytic |
| C621 | RC-GZA107AF1E | J | AB | 100 µF,25V,Electrolytic |
| C622 | VCKYPA1HF223Z | J | AB | 0.022 µF,50V |
| C624 | VCKYPA1HF223Z | J | AB | 0.022 µF,50V |
| C625 | RC-GZA106AF1C | J | AB | 10 µF,16V,Electrolytic |
| C626 | RC-GZA107AF1E | J | AB | 100 µF,25V,Electrolytic |
| C627 | VCKYPA1HF223Z | J | AB | 0.022 µF,50V |
| C628 | RC-GZA106AF1C | J | AB | 10 µF,16V,Electrolytic |
| C629 | RC-GZV477AF1E | J | AC | 470 µF,25V,Electrolytic |
| C630 | RC-GZW478AF1E | J | AG | 4700 µF,25V,Electrolytic |
| C632,633 | VCKYPA1HF223Z | J | AB | 0.022 µF,50V |
| C636,637 | VCKYPA1HF223Z | J | AB | 0.022 µF,50V |
| C639,640 | VCKYPA1HB472K | J | AB | 0.0047 µF,50V |
| C651 | VCFYFA1HA104J | J | AC | 0.1 µF,50V,Thin Film |
| C654 | VCFYFA1HA104J | J | AC | 0.1 µF,50V,Thin Film |
| ⚠ C657~660 | VCFYFA1HA104J | J | AC | 0.1 µF,50V,Thin Film |
| C661 | VCKYPA1HB102K | J | AA | 0.001 µF,50V |
| C665 | VCFYFA1HA473J | J | AB | 0.047 µF,50V,Thin Film |
| C666,667 | VCKYPA1HB821K | J | AA | 820 pF,50V |
| C668 | VCKYPA1HB391K | J | AA | 390 pF,50V |
| C683 | RC-GZV228AF1C | J | AG | 2200 µF,16V,Electrolytic |
| C688 | VCFYFA1HA473J | J | AB | 0.047 µF,50V,Thin Film |
| C689 | RC-GZA474AF1H | J | AA | 0.47 µF,50V,Electrolytic |
| C701,702 | VCCCCY1HH220J | J | AA | 22 pF (CH),50V |
| C703 | VCKYCY1EF104Z | J | AA | 0.1 µF,25V |
| C704 | VCKYCY1EF223Z | J | AB | 0.022 µF,25V |
| C705 | VCKYPA1HF103Z | J | AB | 0.01 µF,16V |
| C710 | VCKYCY1EB103K | J | AA | 0.01 µF,25V |
| C711 | RC-GZA335AF1H | J | AB | 3.3 µF,50V,Electrolytic |
| C712 | VCKYCY1EB103K | J | AA | 0.01 µF,25V |
| C713 | RC-GZA106AF1C | J | AB | 10 µF,16V,Electrolytic |
| C714 | VCKYCY1HB561K | J | AA | 560 pF,50V |
| C715 | RC-GZA107AF1A | J | AB | 100 µF,10V,Electrolytic |
| C801 | VCCSCY1HL101J | J | AA | 100 pF,50V |
| C802 | VCKYCY1EB153K | J | AA | 0.015 µF,25V |
| C803 | RC-EZD476AF1A | J | AC | 47 µF,10V,Electrolytic |
| C804 | VCKYCY1EB103K | J | AA | 0.01 µF,25V |
| C805 | VCKYCY1HB272K | J | AA | 0.0027 µF,50V |
| C806 | VCKYCY1HB472K | J | AA | 0.0047 µF,50V |
| C807 | VCKYCY1EB333K | J | AC | 0.033 µF,25V |
| C809 | VCKYCY1HB472K | J | AA | 0.0047 µF,50V |
| C810 | VCKYCY1HB102K | J | AA | 0.001 µF,50V |
| C811 | RC-GZA476AF1A | J | AB | 47 µF,10V,Electrolytic |
| C812 | VCKYCY1EF103Z | J | AA | 0.01 µF,25V |
| C813 | RC-EZD107AF1A | J | AB | 100 µF,10V,Electrolytic |
| C817~819 | VCKYCY1EB104K | J | AD | 0.1 µF,25V |
| C820 | VCKYCY1EF103Z | J | AA | 0.01 µF,25V |
| C821 | VCKYCY1EB104K | J | AD | 0.1 µF,25V |
| C822 | RC-GZA227AF1A | J | AB | 220 µF,10V,Electrolytic |
| C823 | VCKYCY1EF103Z | J | AA | 0.01 µF,25V |
| C824,825 | VCKYCY1EB563K | J | AD | 0.056 µF,25V |
| C826,827 | VCCCCY1HH150J | J | AA | 15 pF (CH),50V |
| C828 | RC-GZA107AF1A | J | AB | 100 µF,10V,Electrolytic |
| C829 | RC-EZD107AF1A | J | AB | 100 µF,10V,Electrolytic |
| C830 | VCKYCY1EB563K | J | AD | 0.056 µF,25V |
| C831,832 | RC-GZA106AF1C | J | AB | 10 µF,16V,Electrolytic |
| C833,834 | VCKYCY1HB471K | J | AA | 470 pF,50V |
| C835 | VCKYCY1EB563K | J | AD | 0.056 µF,25V |
| C836 | RC-GZA107AF1A | J | AB | 100 µF,10V,Electrolytic |
| C837 | VCKYCY1HB471K | J | AA | 470 pF,50V |
| C837A | RC-GZA107AF1A | J | AB | 100 µF,10V,Electrolytic |
| C838 | RC-EZD476AF1A | J | AC | 47 µF,10V,Electrolytic |
| C839 | VCCSCY1HL2R0C | J | AD | 2 pF,50V |
| C840,841 | RC-GZA107AF1A | J | AB | 100 µF,10V,Electrolytic |
| C842 | RC-GZA476AF1A | J | AB | 47 µF,10V,Electrolytic |
| C843 | VCKYCY1EF104Z | J | AA | 0.1 µF,25V |
| C844 | VCKYCY1HB682K | J | AA | 0.0068 µF,50V |
| C845 | RC-GZA107AF1A | J | AB | 100 µF,10V,Electrolytic |
| C846,847 | VCKYCY1EF104Z | J | AA | 0.1 µF,25V |
| C848 | VCCSCY1HL390J | J | AD | 39 pF,50V |
| C849 | VCKYCY1EB563K | J | AD | 0.056 µF,25V |
| C850 | RC-GZA227AF1A | J | AB | 220 µF,10V,Electrolytic |
| C851 | RC-GZA107AF1A | J | AB | 100 µF,10V,Electrolytic |
| C852 | VCQYKA1HM222J | J | AB | 0.0022 µF,50V,Mylar |
| C853 | VCKYPA1HB472K | J | AB | 0.0047 µF,50V |
| C855 | RC-GZA107AF1A | J | AB | 100 µF,10V,Electrolytic |
| C857 | RC-GZA476AF1C | J | AB | 47 µF,16V,Electrolytic |
| C858 | VCKYCY1EF103Z | J | AA | 0.01 µF,25V |
| C859 | RC-GZA477AF1A | J | AC | 470 µF,10V,Electrolytic |
| C860 | VCKYCY1EF104Z | J | AA | 0.1 µF,25V |
| C861 | VCKYPA1HB222K | J | AA | 0.0022 µF,50V |
| C862 | VCKYPA1HB102K | J | AA | 0.001 µF,50V |
| C863 | VCKYCY1HB471K | J | AA | 470 pF,50V |
| C864~869 | VCKYCY1HB221K | J | AA | 220 pF,50V |
| C871 | RC-EZD476AF1C | J | AC | 47 µF,16V,Electrolytic |
| C872 | VCKYCY1EB104K | J | AD | 0.1 µF,25V |
| C887 | VCKYCY1HB272K | J | AA | 0.0027 µF,50V |
| C901,902 | RC-GZV227AF1H | J | AC | 220 µF,50V,Electrolytic [XL-1100H Only] |
| C903,904 | RC-GZA106AF1H | J | AB | 10 µF,50V,Electrolytic [XL-1100H Only] |
| C905,906 | RC-GZA107AF1A | J | AB | 100 µF,10V,Electrolytic [XL-1100H Only] |

## RESISTORS

| | | | | |
|---|---|---|---|---|
| | VRS-CY1JB000J | J | AA | 0 ohm,Jumper,0.8×1.55mm,Green |
| R7A0 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R7A1 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R7A2 | VRS-CY1JB104J | J | AA | 100 kohm,1/16W |
| R7A3 | VRD-ST2EE101J | J | AA | 100 ohm,1/4W |
| R7A4 | VRS-CY1JB121J | J | AA | 120 ohms,1/16W |
| R7A5 | VRS-CY1JB103J | J | AA | 10 kohm,1/16W |
| R7A6 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R7A7 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R7A8 | VRS-CY1JB820J | J | AA | 82 ohms,1/16W |
| R7A9 | VRD-ST2CD332J | J | AA | 3.3 kohms,1/6W |
| R7B0 | VRS-CY1JB103J | J | AA | 10 kohm,1/16W |
| R80A | VRS-CY1JB823J | J | AA | 82 kohms,1/16W |
| R80B | VRS-CY1JB683J | J | AA | 68 kohms,1/16W |
| R80C | VRS-CY1JB823J | J | AA | 82 kohms,1/16W |
| R80E | VRS-CY1JB823J | J | AA | 82 kohms,1/16W |
| R80F | VRS-CY1JB823J | J | AA | 82 kohms,1/16W |
| R80G | VRD-ST2CD683J | J | AA | 68 kohms,1/6W |
| R101 | VRD-ST2CD102J | J | AA | 1 kohm,1/6W |
| R102 | VRD-ST2CD102J | J | AA | 1 kohm,1/6W |
| R104 | VRS-CY1JB563J | J | AA | 56 kohms,1/16W |
| R105 | VRD-RT2HD271J | J | AA | 270 ohms,1/2W |

| NO. | PARTS CODE | ★ | PRICE RANK | DESCRIPTION |
|---|---|---|---|---|
| R106 | VRD-ST2EE4R7J | J | AA | 4.7 ohms,1/4W |
| R107 | VRD-RT2HD271J | J | AA | 270 ohms,1/2W |
| R108 | VRD-ST2EE4R7J | J | AA | 4.7 ohms,1/4W |
| R109 | VRD-ST2CD821J | J | AA | 820 ohms,1/6W |
| R110 | VRD-ST2CD223J | J | AA | 22 kohms,1/6W |
| R323 | VRS-CY1JB683J | J | AA | 68 kohms,1/16W |
| R336 | VRD-ST2CD562J | J | AA | 5.6 kohms,1/6W |
| R343 | VRD-ST2CD181J | J | AA | 180 ohms,1/6W |
| R344 | VRS-CY1JB681J | J | AA | 680 ohms,1/16W |
| R345 | VRS-CY1JB472J | J | AA | 4.7 kohms,1/16W |
| R346 | VRS-CY1JB331J | J | AA | 330 ohms,1/16W |
| R347 | VRS-CY1JB682J | J | AA | 6.8 kohms,1/16W |
| R348 | VRS-CY1JB681J | J | AA | 680 ohms,1/16W |
| R349 | VRS-CY1JB330J | J | AA | 33 ohms,1/16W |
| R350 | VRS-CY1JB272J | J | AA | 2.7 kohms,1/16W |
| R351 | VRS-CY1JB562J | J | AA | 5.6 kohms,1/16W |
| R352 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R353 | VRS-CY1JB271J | J | AA | 270 ohms,1/16W |
| R355 | VRS-CY1JB332J | J | AA | 3.3 kohms,1/16W |
| R356 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R357 | VRS-CY1JB474J | J | AA | 470 kohms,1/16W |
| R358 | VRS-CY1JB822J | J | AA | 8.2 kohms,1/16W |
| R359 | VRS-CY1JB182J | J | AA | 1.8 kohms,1/16W |
| R360 | VRS-CY1JB472J | J | AA | 4.7 kohms,1/16W |
| R361,362 | VRS-CY1JB562J | J | AA | 5.6 kohms,1/16W |
| R363 | VRD-ST2CD682J | J | AA | 6.8 kohms,1/6W |
| R364 | VRS-CY1JB682J | J | AA | 6.8 kohms,1/16W |
| R365 | VRS-CY1JB103J | J | AA | 10 kohm,1/16W |
| R366 | VRS-CY1JB222J | J | AA | 2.2 kohms,1/16W |
| R369A | VRS-CY1JB680J | J | AA | 68 ohms,1/16W |
| R369B | VRS-CY1JB820J | J | AA | 82 ohms,1/16W |
| R371~374 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R376 | VRD-ST2CD103J | J | AA | 10 kohm,1/6W |
| R377 | VRD-ST2CD562J | J | AA | 5.6 kohms,1/6W |
| R379 | VRS-CY1JB222J | J | AA | 2.2 kohms,1/16W |
| R380 | VRD-ST2CD152J | J | AA | 1.5 kohms,1/6W |
| R381 | VRS-CY1JB103J | J | AA | 10 kohm,1/16W |
| R382 | VRD-ST2EE331J | J | AA | 330 ohms,1/4W |
| R383 | VRS-CY1JB562J | J | AA | 5.6 kohms,1/16W |
| R384 | VRD-ST2CD682J | J | AA | 6.8 kohms,1/6W |
| R385 | VRD-ST2CD562J | J | AA | 5.6 kohms,1/6W |
| R386 | VRD-ST2EE331J | J | AA | 330 ohms,1/4W |
| R387 | VRD-ST2CD562J | J | AA | 5.6 kohms,1/6W |
| R391,392 | VRD-ST2EE391J | J | AA | 390 ohms,1/4W |
| R393 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R395 | VRD-ST2CD473J | J | AA | 47 kohms,1/6W |
| R401,402 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R405,406 | VRD-ST2CD273J | J | AA | 27 kohms,1/6W |
| R407,408 | VRD-ST2CD222J | J | AA | 2.2 kohms,1/6W |
| R415~418 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R421,422 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R423~425 | VRD-ST2CD102J | J | AA | 1 kohm,1/6W |
| R435 | VRS-CY1JB103J | J | AA | 10 kohm,1/16W |
| R436 | VRS-CY1JB103J | J | AA | 10 kohm,1/16W |
| R437,438 | VRS-CY1JB682J | J | AA | 6.8 kohms,1/16W |
| R439,440 | VRS-CY1JB392J | J | AA | 3.9 kohms,1/16W |
| R603,604 | VRS-CY1JB103J | J | AA | 10 kohm,1/16W |
| R607 | VRS-CY1JB682J | J | AA | 6.8 kohms,1/16W |
| R608,609 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R611 | VRD-ST2EE101J | J | AA | 100 ohm,1/4W |
| R612 | VRD-ST2EE821J | J | AA | 820 ohms,1/4W |
| R613 | VRS-CY1JB333J | J | AA | 33 kohms,1/16W |
| R614 | VRD-ST2EE470J | J | AA | 47 ohms,1/4W |
| R617 | VRD-ST2CD333J | J | AA | 33 kohms,1/6W |
| R619,620 | VRD-ST2EE470J | J | AA | 47 ohms,1/4W |
| R621 | VRS-CY1JB223J | J | AA | 22 kohms,1/16W |
| R623,624 | VRS-CY1JB223J | J | AA | 22 kohms,1/16W |
| R628 | VRD-ST2EE101J | J | AA | 100 ohm,1/4W |
| R629 | VRD-ST2EE821J | J | AA | 820 ohms,1/4W |
| R631,632 | VRD-ST2EE6R8J | J | AA | 6.8 ohms,1/4W |
| R634 | VRD-ST2EE103J | J | AA | 10 kohm,1/4W |
| R661,662 | VRD-ST2EE331J | J | AA | 330 ohms,1/4W |
| R685 | VRD-ST2CD103J | J | AA | 10 kohm,1/6W |
| R686 | VRD-ST2CD473J | J | AA | 47 kohms,1/6W |
| R687 | VRD-RT2HD272J | J | AA | 2.7 kohms,1/2W |
| R688 | VRD-ST2CD102J | J | AA | 1 kohm,1/6W |
| R689 | VRD-ST2EE102J | J | AA | 1 kohm,1/4W |
| R701 | VRD-ST2EE391J | J | AA | 390 ohms,1/4W |
| R702 | VRS-CY1JB103J | J | AA | 10 kohm,1/16W |
| R706 | VRS-CY1JB392J | J | AA | 3.9 kohms,1/16W |
| R707 | VRS-CY1JB272J | J | AA | 2.7 kohms,1/16W |
| R708 | VRS-CY1JB222J | J | AA | 2.2 kohms,1/16W |
| R710 | VRS-CY1JB272J | J | AA | 2.7 kohms,1/16W |
| R711 | VRS-CY1JB122J | J | AA | 1.2 kohms,1/16W |
| R718 | VRS-CY1JB152J | J | AA | 1.5 kohms,1/16W |
| R719 | VRS-CY1JB122J | J | AA | 1.2 kohms,1/16W |
| R720A,B | VRS-CY1JB122J | J | AA | 1.2 kohms,1/16W |
| R721,722 | VRS-CY1JB103J | J | AA | 10 kohm,1/16W |
| R723 | VRS-CY1JB473J | J | AA | 47 kohms,1/16W |
| R724 | VRS-CY1JB122J | J | AA | 1.2 kohms,1/16W |
| R725 | VRS-CY1JB103J | J | AA | 10 kohm,1/16W |
| R727 | VRS-CY1JB473J | J | AA | 47 kohms,1/16W |
| R728 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R729 | VRS-CY1JB473J | J | AA | 47 kohms,1/16W |
| R731~735 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R738~742 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R744 | VRD-ST2CD102J | J | AA | 1 kohm,1/6W |
| R749,750 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R751 | VRD-ST2CD102J | J | AA | 1 kohm,1/6W |
| R752 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R757,758 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R759 | VRD-ST2CD102J | J | AA | 1 kohm,1/6W |
| R760~770 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R772~774 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R776,777 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R778~781 | VRS-CY1JB473J | J | AA | 47 kohms,1/16W |
| R783 | VRS-CY1JB333J | J | AA | 33 kohms,1/16W |
| R784 | VRD-ST2CD473J | J | AA | 47 kohms,1/6W |
| R785 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R786 | VRD-ST2CD473J | J | AA | 47 kohms,1/6W |
| R789 | VRS-CY1JB473J | J | AA | 47 kohms,1/16W |
| R792 | VRS-CY1JB473J | J | AA | 47 kohms,1/16W |
| R793 | VRS-CY1JB103J | J | AA | 10 kohm,1/16W |
| R795 | VRS-CY1JB473J | J | AA | 47 kohms,1/16W |
| R796 | VRD-ST2EE102J | J | AA | 1 kohm,1/4W |
| R797 | VRS-CY1JB222J | J | AA | 2.2 kohms,1/16W |
| R798 | VRS-CY1JB472J | J | AA | 4.7 kohms,1/16W |
| R799 | VRD-ST2EE102J | J | AA | 1 kohm,1/4W [XL-1100H Only] |
| R801 | VRD-ST2CD103J | J | AA | 10 kohm,1/6W |
| R802 | VRS-CY1JB473J | J | AA | 47 kohms,1/16W |
| R804 | VRS-CY1JB104J | J | AA | 100 kohm,1/16W |
| R806 | VRS-CY1JB153J | J | AA | 15 kohms,1/16W |
| R807 | VRS-CY1JB103J | J | AA | 10 kohm,1/16W |
| R808 | VRS-CY1JB332J | J | AA | 3.3 kohms,1/16W |
| R809 | VRS-CY1JB103J | J | AA | 10 kohm,1/16W |
| R810 | VRS-CY1JB332J | J | AA | 3.3 kohms,1/16W |
| R811 | VRS-CY1JB222J | J | AA | 2.2 kohms,1/16W |
| R812 | VRS-CY1JB332J | J | AA | 3.3 kohms,1/16W |
| R813 | VRD-ST2EE100J | J | AA | 10 ohm,1/4W |
| R814 | VRS-CY1JB332J | J | AA | 3.3 kohms,1/16W |
| R815,816 | VRD-ST2CD103J | J | AA | 10 kohm,1/6W |
| R817,818 | VRS-CY1JB122J | J | AA | 1.2 kohms,1/16W |
| R819 | VRD-ST2CD221J | J | AA | 220 ohms,1/6W |
| R820 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R821 | VRD-ST2CD151J | J | AA | 150 ohms,1/6W |
| R822 | VRD-ST2EE330J | J | AA | 33 ohms,1/4W |
| R823 | VRD-ST2CD102J | J | AA | 1 kohm,1/6W |
| R824 | VRS-CY1JB273J | J | AA | 27 kohm,1/16W |
| R825 | VRS-CY1JB823J | J | AA | 82 kohms,1/16W |
| R826 | VRS-CY1JB272J | J | AA | 2.7 kohms,1/16W |
| R827 | VRS-CY1JB393J | J | AA | 39 kohms,1/16W |
| R828 | VRS-CY1JB122J | J | AA | 1.2 kohms,1/16W |
| R829 | VRD-ST2CD683J | J | AA | 68 kohms,1/6W |
| R830~837 | VRS-CY1JB102J | J | AA | 1 kohm,1/16W |
| R843 | VRD-ST2CD102J | J | AA | 1 kohm,1/6W |
| R851 | VRS-CY1JB331J | J | AA | 330 ohms,1/16W |
| R852~855 | VRS-CY1JB104J | J | AA | 100 kohm,1/16W |
| R861~863 | VRS-CY1JB222J | J | AA | 2.2 kohms,1/16W |
| R873 | VRD-ST2CD332J | J | AA | 3.3 kohms,1/6W |
| R874 | VRS-CY1JB222J | J | AA | 2.2 kohms,1/16W |
| R876 | VRS-CY1JB154J | J | AA | 150 kohms,1/16W |
| R877 | VRS-CY1JB683J | J | AA | 68 kohms,1/16W |
| R879 | VRS-CY1JB332J | J | AA | 3.3 kohms,1/16W |
| R901 | VRS-CY1JB222J | J | AA | 2.2 kohms,1/16W |
| R902 | VRS-CY1JB473J | J | AA | 47 kohms,1/16W |
| R904 | VRS-CY1JB222J | J | AA | 2.2 kohms,1/16W |
| R905 | VRS-CY1JB473J | J | AA | 47 kohms,1/16W |
| R910 | VRD-ST2EE272J | J | AA | 2.7 kohms,1/4W [XL-1100H Only] |
| R911 | VRD-ST2EE101J | J | AA | 100 ohm,1/4W [XL-1100H Only] |
| R912 | VRD-ST2EE471J | J | AA | 470 ohms,1/4W [XL-1100H Only] |
| R913 | VRD-ST2EE100J | J | AA | 10 ohm,1/4W [XL-1100H Only] |
| R914 | VRD-ST2CD471J | J | AA | 470 ohms,1/6W |

| NO. | PARTS CODE | ★ | PRICE RANK | DESCRIPTION |
|---|---|---|---|---|
| **OTHER CIRCUITRY PARTS** | | | | |
| CFW451 | QCNWN0308SJZZ | J | AB | Lead Wire |
| CFW701A,B | QCNWN0292SJZZ | J | AD | Flat Wire,3Pin [XL-1100H] |
| CFW701A,B | QCNWN0294SJZZ | J | | Flat Wire,2Pin [XL-1000H] |
| CFW852 | QCNWN0303SJZZ | J | AB | Lead Wire |
| CNP307 | QCNCM010LAWZZ | J | AC | Plug,11Pin |
| CNP607 | QCNCM004CAFZZ | J | AB | Plug,3Pin |
| ⚠ CNP651 | QCNCM017BSJZZ | J | AD | Plug,3Pin |
| CNP701 | QCNCM999BAFZZ | J | AD | Plug,2Pin |
| CNP702 | QCNCM999QAFZZ | J | AC | Plug,15Pin |
| CNP703 | QCNCM999LAFZZ | J | | Plug,11Pin [XL-1000H Only] |
| CNP703 | QCNCM999MAFZZ | J | | Plug,12Pin [XL-1100H Only] |
| CNP707 | QCNCM998CAFZZ | J | AE | Plug,3Pin |
| CNP801 | QCNCM039DSJZZ | J | AD | Plug,4Pin |
| CNP802 | QCNCW007RSJZZ | J | AF | Socket,16Pin |
| CNP803 | QCNCM035FSJZZ | J | AD | Plug,6Pin |
| CNP804 | QCNCM038BSJZZ | J | AB | Plug,2Pin |
| CNP805 | QCNCM004CAFZZ | J | AB | Plug,3Pin |
| CNP806 | QCNCM004CAFZZ | J | AB | Plug,3Pin |
| CNS307 | QCNCW010LAWZZ | J | AD | Socket,11Pin |
| CNW3 | QCNWN0288SJZZ | J | AE | Flat Cable,16Pin |
| CNW607/CNS607 | QCNWN0291SJZZ | J | AE | Connector Ass'y,3/3Pin |
| CNW701/CNS701 | QCNWN0271SJZZ | J | AD | Connector Ass'y,2/2Pin |
| CNW702/CNS702 | QCNWN0269SJZZ | J | AG | Connector Ass'y,15/15Pin |
| CNW703/CNS703 | QCNWN0298SJZZ | J | AG | Connector Ass'y,12/12Pin [XL-1100H Only] |
| CNW703/CNS703 | QCNWN0299SJZZ | J | | Connector Ass'y,11/11Pin [XL-1000H Only] |
| CNW707/CNS707 | QCNWN0125SJZZ | J | AE | Connector Ass'y,3/3Pin |
| CNW803/CNS803 | QCNWN0276SJZZ | J | AE | Connector Ass'y,6/6Pin |
| CNW804/CNS804 | QCNWN0290SJZZ | J | AD | Connector Ass'y,2Pin |
| CNW805/CNS805 | QCNWN0296SJZZ | J | AE | Connector Ass'y,3/3Pin |
| CNW806/CNS806 | QCNWN0270SJZZ | J | AE | Connector Ass'y,3/3Pin |
| ⚠ F651 | QFS-D252ABGNI | J | AE | Fuse,T2.5A L 250V |
| ⚠ F653 | QFS-D132ABGNI | J | AE | Fuse,T1.25A L 250V |
| FE301 | RTUNS0012AWZZ | J | AV | FM Front End |
| J601 | QJAKM0001SJZZ | J | AG | Jack,Headphones |
| J801 | VHPPLT130T2-1 | J | AM | Jack,CD Degital Output |
| LCD701 | RV-LX0012SJZZ | J | AR | LCD Display[XL-1100H] |
| LCD701 | RV-LX0014SJZZ | J | AP | LCD Display[XL-1000H] |
| LMP701 | RLMPP0001SJZZ | J | AT | Lamp [XL-1100H Only] |
| M801 | RMOTV0004SJM1 | J | AM | Motor with Gear [CD Lid] |
| NM801 | RMOTV0409AFM1 | J | AN | Motor with Gear [Sled] |
| NM802 | RMOTV0408SJM1 | J | AR | Motor with Chassis [Spindle] |
| NSW801 | QSW-F9001AWZZ | J | AE | Switch,Push Type [Pickup In] |
| ⚠ RLY601 | RRLYD0004SJZZ | J | AG | Relay |
| RX701 | VHLN61V380A-1 | J | AN | Remote Sensor |
| SO301 | QTANC9003SJZZ | J | AF | Terminal,Antenna |
| SO401 | QSOCJ0003SJZZ | J | AG | Socket,Video/AUX Input |
| SO601 | QTANA0007SJZZ | J | AF | Terminal,Speaker |
| ⚠ SO655 | QSOCA0212AWZZ | J | AD | Socket AC Input |
| SW709 | QSW-K0004SJZZ | J | AD | Switch,Key Type [On/Stand-by] |
| SW710 | QSW-K0004SJZZ | J | AD | Switch,Key Type [CD Lid Open/Close] |
| SW711 | QSW-K0004SJZZ | J | AD | Switch,Key Type [FF/Preset Up] |
| SW712 | QSW-K0004SJZZ | J | AD | Switch,Key Type [CD Play/Pause/Tuning Up] |
| SW713 | QSW-K0004SJZZ | J | AD | Switch,Key Type [Volume Up] |
| SW718 | QSW-K0004SJZZ | J | AD | Switch,Key Type [Volume Down] |
| SW721 | QSW-K0004SJZZ | J | AD | Switch,Key Type [Bass/Treble] |
| SW722 | QSW-K0004SJZZ | J | AD | Switch,Key Type [Memory/Set] |
| SW725 | QSW-K0004SJZZ | J | AD | Switch,Key Type [CD Stop/Tuning Down] |
| SW726 | QSW-K0004SJZZ | J | AD | Switch,Key Type [REW/Preset Down] |
| SW727 | QSW-K0004SJZZ | J | AD | Switch,Key Type [Function] |
| SW802 | QSW-B0001SJZZ | J | AG | Switch,Lever Type [CD Lid] |
| **CD MECHANISM PARTS** | | | | |
| 301 | NGERH0586AFZZ | J | AC | Gear,Middle |
| 302 | NGERH0587AFZZ | J | AC | Gear,Drive |
| 303 | MLEVP0010AWZZ | J | | Rail,Guide |
| 304 | NSFTM0291AFFW | J | AD | Shaft,Guide |
| 305 | PCOVP1333AFSA | J | AF | Cover,Mechanism |
| 306 | PCUSG0001AWSA | J | AD | Cushion (Green) |
| 307 | PCUSG0004AWSA | J | AD | Cushion (Red-Brown) |
| ⚠ 308 | DCTRH8005SJ01 | J | BA | Pickup Unit Ass'y |
| 308- 1 | ———— | | — | Pickup Unit (Not Replacement Item) |
| 308- 2 | NGERR0043AFZZ | J | AC | Gear,Rack |
| 308- 3 | NSPRC0961AFZZ | J | | Spring,Rack |
| 701 | LX-WZ1070AFZZ | J | AA | Washer,ø1.5×ø3.8×0.25mm |
| 702 | XBBSD20P03000 | J | AA | Screw,ø2×3mm |
| 703 | XBSSD26P06000 | J | AA | Screw,ø2.6×6mm |
| 704 | XHBSD20P05000 | J | AA | Screw,ø2×5mm |
| NM801 | RMOTV0409AFM1 | J | AN | Motor with Gear [Sled] |
| NM802 | RMOTV0408SJM1 | J | AR | Motor with Chassis [Spindle] |
| NSW801 | QSW-F9001AWZZ | J | AE | Switch,Push Type [Pickup In] |
| **CABINET PARTS** | | | | |
| 200 | GCABA1058SJSA | J | AM | Front Cabinet [XL-1000H] |
| 200 | GCABA1058SJSB | J | AN | Front Cabinet [XL-1100H] |
| 201 | GCABB1063SJSA | J | AL | Bottom Cabinet [XL-1000H] |
| 201 | GCABB1063SJSB | J | | Bottom Cabinet [XL-1100H] |
| 202 | GCOVA1007SJSA | J | AH | Rear Panel [XL-1000H] |
| 202 | GCOVA1007SJSB | J | AK | Rear Panel [XL-1100H] |
| 203 | GCOVA1005SJSA | J | AE | Cover,Remote Sensor |
| 204 | GFTAT1008SJSA | J | AN | CD Lid [XL-1000H] |
| 204 | GFTAT1008SJSB | J | | CD Lid [XL-1100H] |
| 205 | LANGQ0002SJFW | J | AB | Lug |
| 206 | HDECQ0054SJSA | J | AN | Clear Panel,CD Lid [XL-1000H] |
| 206 | HDECQ0056SJSA | J | | Clear Panel,CD Lid [XL-1100H] |
| 207 | HDECQ0051SJSA | J | AE | Clear Panel,Display |
| 208 | JKNBZ0053SJSA | J | AF | Knob,Operation A |
| 209 | JKNBZ0054SJSA | J | AF | Knob,Operation B |
| 210 | LANGF0033SJFW | J | AB | Bracket,Main PWB |
| 211 | LANGF0034SJFW | J | AB | Bracket,Tuner PWB |
| 212 | LANGF0035SJFW | J | AC | Bracket,Gear Box |
| 213 | LANGK0025SJFW | J | AE | Bracket,Tuner PWB |
| 214 | LANGK0026SJFW | J | AB | Cover,Lamp [XL-1100H] |
| 214 | LHLDZ1040SJSA | J | AD | Cover,Lamp (LED) [XL-1000H] |
| 215 | LCHSM0014SJFW | J | AH | Chassis |
| 216 | LHLDW1001SJZZ | J | AD | Nylon Band |
| 217 | LHLDZ0133SJSA | J | | LCD Holder,A [XL-1100H] |
| 217 | LHLDZ1038SJSA | J | AD | LCD Holder,A [XL-1000H] |
| 218 | LHLDZ1034SJSA | J | AD | LED Holder |
| 219 | LHLDZ1035SJSA | J | AE | Gear Box |
| 220 | LHLDZ1036SJSA | J | AE | Lid,Gear Box |
| 221 | LPLTP0001SJSA | J | AE | Cam Plate [XL-1000H] |
| 221 | LPLTP0001SJSB | J | | Cam Plate [XL-1100H] |
| 222 | MLEVP0006SJSA | J | AE | Rotate Lever,CD Lid,Left [XL-1000H] |
| 222 | MLEVP0006SJSB | J | | Rotate Lever,CD Lid,Left [XL-1100H] |
| 223 | MLEVP0007SJSA | J | AE | Rotate Lever,CD Lid,Right [XL-1000H] |
| 223 | MLEVP0007SJSB | J | | Rotate Lever,CD Lid,Right [XL-1100H] |
| 224 | NGERW0004SJSA | J | AE | Drive Gear,A |
| 225 | NGERW0005SJSA | J | AE | Drive Gear,B |
| 226 | NGERW0006SJSA | J | AG | Drive Gear,C |
| 228 | PCOVU9002SJZZ | J | AB | Felt,CD Lid Cover |
| 229 | PCOVZ1005SJSA | J | AE | Indicator Panel |
| 230 | PCUSG0003SJZZ | J | AC | Cushion,Leg |
| 231 | PGUMS0002SJZZ | J | | Cushion,CD Lid |
| 232 | PRDAR0040SJFW | J | AL | Radiator,Main |
| 233 | PRDAR0038SJFW | J | AE | Radiator,Transistor |
| 234 | PREFL0001SJSA | J | AD | LCD Diffusion Plate |
| 235 | PSHEP0003SJZZ | J | AE | Sheet,LCD |
| 236 | PSHEP0004SJZZ | J | AD | LCD Reflect Paper |
| 237 | QFSHD0001AWZZ | J | AB | Holder,Fuse |
| 238 | TLABS0004SJZZ | J | AC | Label,Laser |
| 239 | TLABS0036SJZZ | J | AB | Label,Class 3A |
| 240 | TSPC-0216SJZZ | J | | Label,Specification [XL-1000H] |
| 240 | TSPC-0230SJZZ | J | | Label,Specification [XL-1100H For U.K.] |
| 240 | TSPC-0252SJZZ | J | | Label,Specification [XL-1100H For Europe] |
| 601 | LX-EZ0001SJFN | J | AB | Screw,ø2.5×10mm |
| 602 | LX-WZ7094AFZZ | J | AA | Washer,Special Tipe |
| 603 | XEBSD25P08000 | J | AA | Screw,ø2.5×8mm |
| 604 | XEBSD25P10000 | J | AA | Screw,ø2.5×10mm |
| 605 | XEBSD25P12000 | J | AA | Screw,ø2.5×12mm |
| 606 | XEBSF25P08000 | J | AA | Screw,ø2.5×8mm |
| 607 | XHBSD20P05000 | J | AA | Screw,ø2×5mm |
| 608 | XHBSD30P06000 | J | AA | Screw,ø3×6mm |
| 609 | XHBSD40P08000 | J | AA | Screw,ø4×8mm |
| 610 | XJBSD30P06000 | J | AA | Screw,ø3×6mm |
| 611 | XJBSD30P08000 | J | AA | Screw,ø3×8mm |
| 612 | XJBSD30P10000 | J | AA | Screw,ø3×10mm |
| 613 | XJBSD30P14000 | J | AA | Screw,ø3×14mm |
| 614 | XJBSF30P08000 | J | AA | Screw,ø3×8mm |
| 615 | XJBSF30P10000 | J | AA | Screw,ø3×10mm |

| NO. | PARTS CODE | ★ | PRICE RANK | DESCRIPTION |
|---|---|---|---|---|

## SPEAKER BOX PARTS

| | | | | |
|---|---|---|---|---|
| 901 | CPNLS1008SJ01 | J | AR | Front Panel Ass'y [XL-1000H] |
| 901 | CPNLS1008SJ02 | J | AS | Front Panel Ass'y [XL-1100H] |
| 902 | GBOXS0010SJSA | J | AS | Box Ass'y |
| 903 | GWAKP1017SJ01 | J | AP | Net Flame Ass'y [XL-1000H] |
| 903 | GWAKP1017SJ02 | J | AP | Net Flame Ass'y [XL-1100H] |
| 904 | PDUC-0002SJZZ | J | AE | Duct Pipe |
| 905 | PGUMM0003SJSA | J | AD | Net Catcher |
| 906 | PCOVZ1003SJSA | J | AG | Duct Cap |
| 907 | QTANA9014SJZZ | J | AE | Terminal |
| 908 | TSPC-0222SJZZ | J | AD | Specification Label [XL-1000H] |
| 908 | TSPC-0232SJZZ | J | AD | Specification Label [XL-1100H] |
| 909 | XTBSF40P12000 | J | AA | Screw,ø4×12mm |
| SP1,2 | RSPA00005SJ8W | J | AP | Woofer |
| SP3,4 | RALMB0001SJZZ | J | AH | Tweeter |

## ACCESSORIES/PACKING PARTS

| | | | | | |
|---|---|---|---|---|---|
| ⚠ 1 | QACCB0001SJ00 | J | AW | AC Power Supply Cord [For U.K.] |
| ⚠ 1 | QACCE0001SJZZ | J | AH | AC Power Supply Cord [For Europe] |
| 2 | QANTL0001SJZZ | J | AK | AM Loop Antenna |
| 3 | QANTW0002SJZZ | J | AH | FM Antenna |
| 4 | RRMCG0031SJSB | J | AT | Remote Control |
| 4- 1 | GCABB1064SJSA | J | | Battery Lid,Remote Control |
| 5 | SPAKA0066SJZZ | J | | Packing Add.,Left |
| 6 | SPAKA0067SJZZ | J | | Packing Add.,Right |
| 7 | SPAKC0156SJZZ | J | | Packing Case [XL-1000H] |
| 7 | SPAKC0167SJZZ | J | | Packing Case [XL-1100H] |
| 8 | SPAKZ0031SJZZ | J | | Pad,Accessoryes |
| 9 | SPAKZ0064SJZZ | J | AC | Polyethylene Bag,Unit |
| 10 | SSAKA0002SJZZ | J | AE | Polyethylene Bag,Accessories |
| 11 | TCADN0001SJZZ | J | AE | Register Card [U.K.Only] |
| 12 | TINSE0061SJZZ | J | AF | Operation Manual [For U.K.] |
| 12 | TINSZ0091SJZZ | J | AL | Operation Manual [For Europe] |
| 13 | TINSE0069SJZZ | J | | Quick Guide [U.K.Only] |
| 14 | TLABE0080SJZZ | J | | Label,Bar Code |
| 15 | TLABN0126SJZZ | J | | Label,Serial No. [XL-1000H] |
| 15 | TLABN0135SJZZ | J | | Label,Serial No. [XL-1100H] |
| 16 | SPAKZ0039SJZZ | J | | Polyethylene Bag,Speaker |
| 17 | SPAKA0068SJZZ | J | | Packing Add.,Speaker [Top/Bottom] |
| 18 | SPAKS0003SJZZ | J | | Sleeve Carton,Speaker |
| 19 | TLABZ0030SJZZ | J | AC | Label,Energy |
| 20 | ———— | J | – | Battery (UM-4) (Not Replacement Item) [For Europe] |
| 21 | QCNWH0006SJ01 | J | | Speaker Cord |

## P.W.B. ASSEMBLY (Not Replacement Item)

| | | | | |
|---|---|---|---|---|
| PWB-A1~8 | DCEKLV024SJ03 | J | – | Main/Tuner/Display/Terminal/Switch/Led/Led/Holder (Combined Ass'y) [XL-1000H] |
| PWB-A1~8 | DCEKLV029SJ03 | J | – | Main/Tuner/Display/Terminal/Switch/Led/Lamp/Holder (Combined Ass'y) [XL-1100H] |
| ⚠ PWB-B | DCEKJV024SJ03 | J | – | Power |
| PWB-C | QPWBF3895AFZZ | J | AC | CD Motor (PWB Only) |

## OTHER SERVICE PART

| | | | | |
|---|---|---|---|---|
| | UDSKA0004AFZZ | J | AZ | CD Pickup Lens Cleaner Disc |

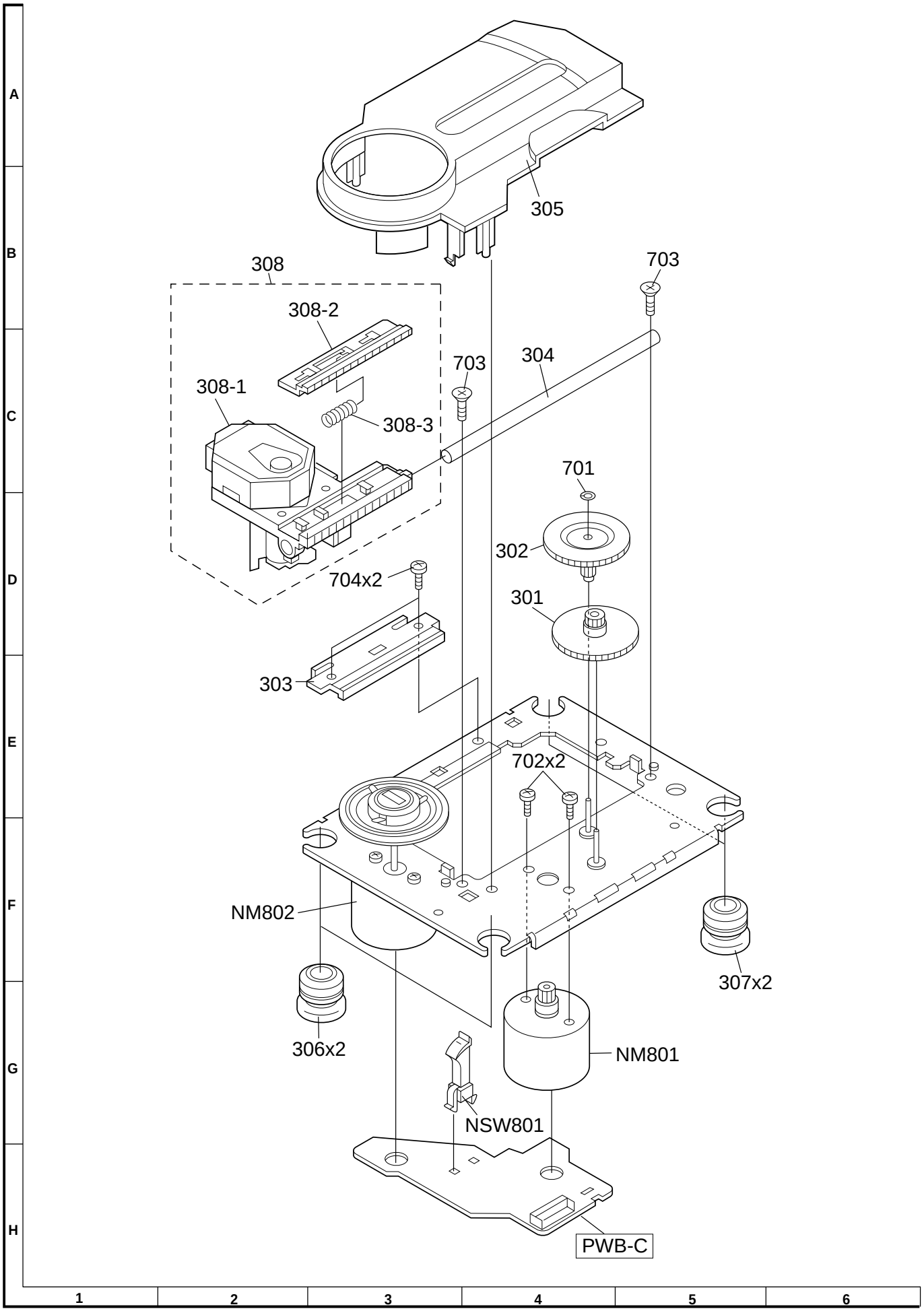



**Figure 6 CD MECHANISM EXPLODED VIEW**

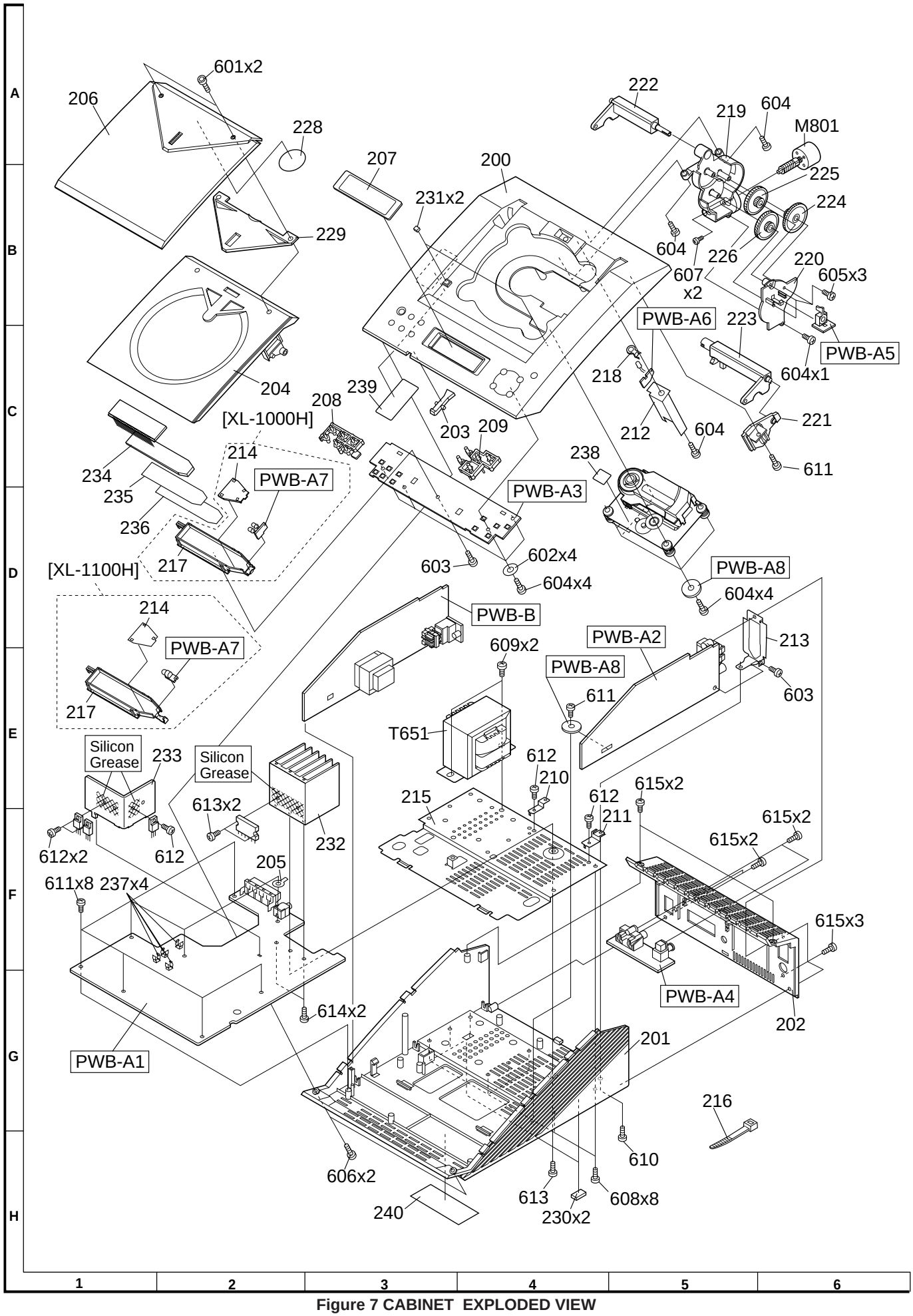



Figure 7 CABINET EXPLODED VIEW

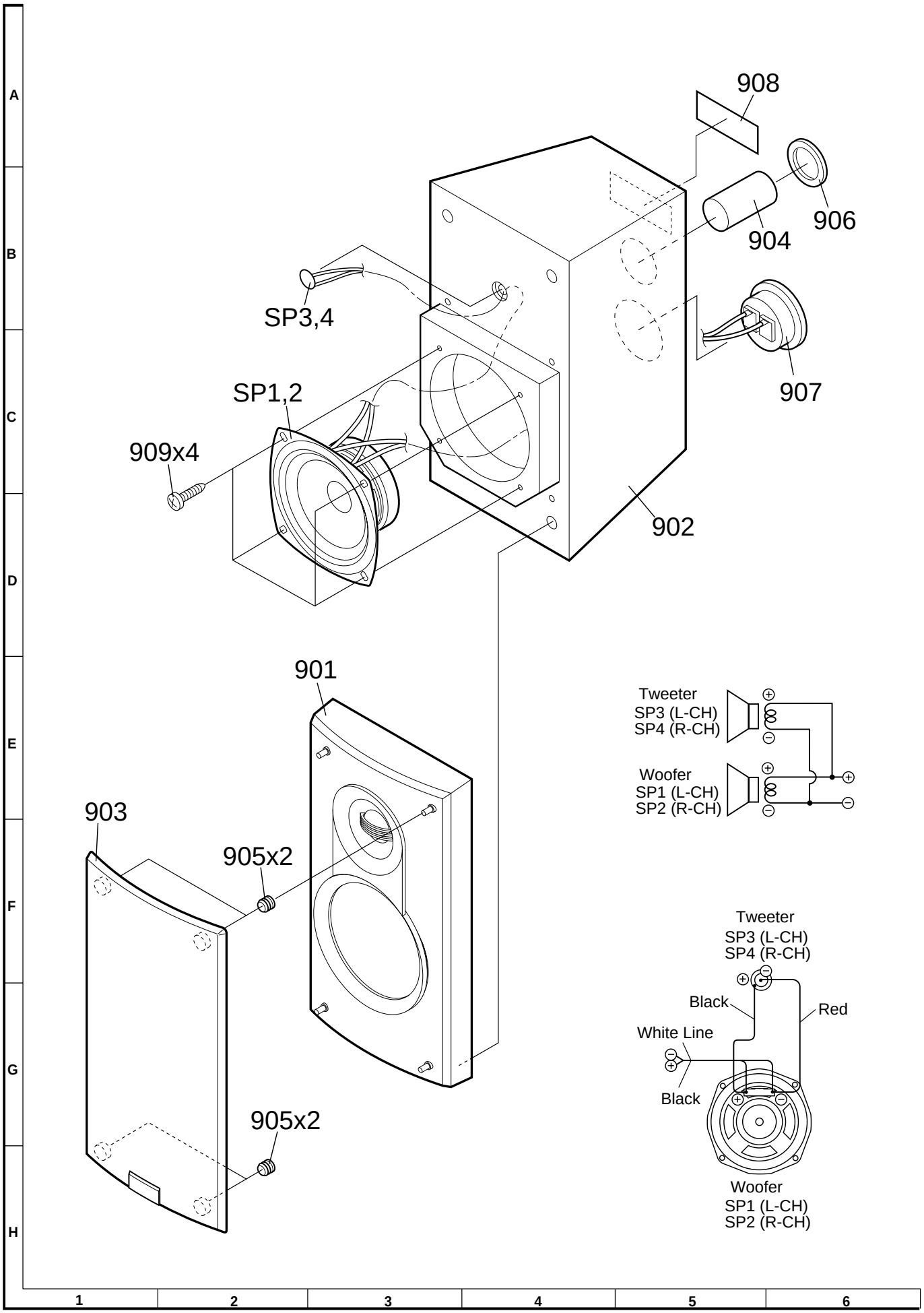
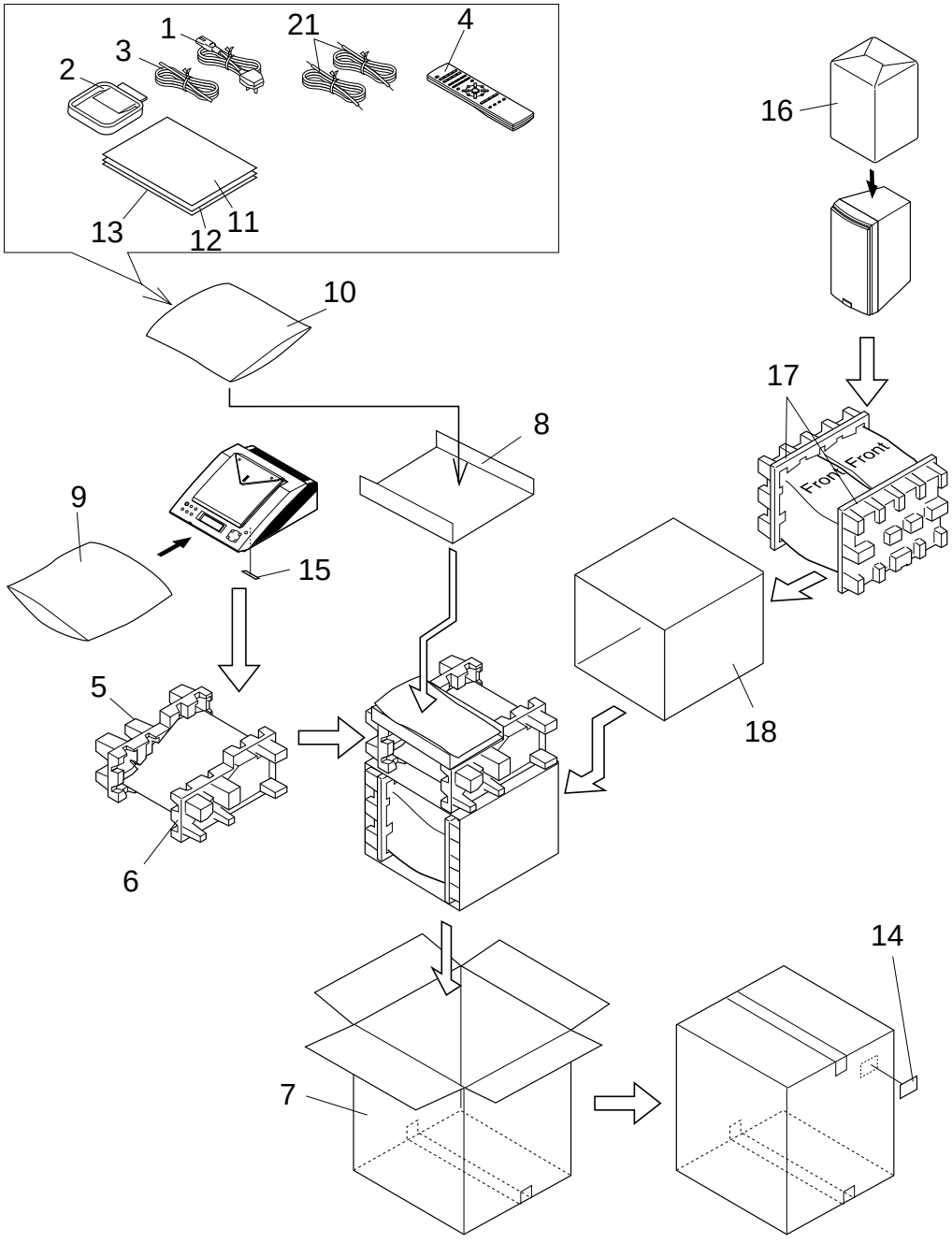



**Figure 8 SPEAKER EXPLODED VIEW**

# PACKING OF METHOD (FOR U.K. ONLY)

| | |
|---|---|
| 1. AC Power Supply Cord | QACCB0001SJ00 |
| 2. AM Loop Antenna | QANTL0001SJZZ |
| 3. FM Antenna | QANTW0002SJZZ |
| 4. Remote Control [XL-1000H] | RRMCG0031SJSA |
| 4. Remote Control [XL-1100H] | RRMCG0031SJSB |
| 5. Packing Add., Left | SPAKA0066SJZZ |
| 6. Packing Add., Right | SPAKA0067SJZZ |
| 7. Packing Case [XL-1000H] | SPAKC0156SJZZ |
| 7. Packing Case [XL-1100H] | SPAKC0167SJZZ |
| 8. Pad,Accessories | SPAKZ0031SJZZ |
| 9. Polyethylene Bag, Unit | SPAKZ0064SJZZ |
| 10. Polyethylene Bag, Accessories | SSAKA0002SJZZ |
| 11. Regisiter Card | TCADN0001SJZZ |
| 12. Operation Manual | TINSE0061SJZZ |
| 13. Quick Guide | TINSE0069SJZZ |
| 14. Label, Bar Code | TLABE0080SJZZ |
| 15. Label, Serial No. [XL-1000H] | TLABN0126SJZZ |
| 15. Label, Serial No. [XL-1100H] | TLABN0135SJZZ |
| 16. Polyethylene Bag, Speaker | SPAKZ0039SJZZ |
| 17. Packing Add., Speake [Top/Bottom] | SPAKA0068SJZZ |
| 18. Sleeve Carton, Speaker | SPAKS0003SJZZ |
| 21. Speaker Cord | QCNWH0006SJ01 |

| Setting position of switches and knobs | |
|---|---|
| CD Lid | CLOSE |



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